

MANUFACTURERS' RECORD.

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

VOL. XXV. No. 9.
WEEKLY.

BALTIMORE, MARCH 30, 1894.

\$4.00 A YEAR.
SINGLE COPIES, 10 CENTS.

Manufacturers' Record.

PUBLISHED EVERY FRIDAY BY THE
Manufacturers' Record Publishing Co.
MANUFACTURERS' RECORD BUILDING,
Lexington and North Streets,
BALTIMORE.

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Editor and General Manager.
C. R. MARCHANT, Business Manager.

NEW ENGLAND OFFICE—John Hancock
Building, 178 Devonshire St., Boston.
S. I. CARPENTER, Manager.

NEW YORK OFFICE—39 and 41 Cortlandt St.
Room 90.

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BALTIMORE, MARCH 30, 1894.

Do You Want Machinery?

If so, examine the advertising pages of the MANUFACTURERS' RECORD, where you will find the advertisements of 500 or 600 of the leading machinery manufacturers and dealers of the country. There is hardly any line of general machinery that cannot be secured from some one or more of our advertisers, but if you cannot find what you want in our advertising columns, write to the MANUFACTURERS' RECORD giving particulars of the machinery desired, and the information will be secured for you free of cost.

If the South were dominated by the same intelligent ideas of its sectional interests that actuated its statesmen of the ante-bellum period, it would be unanimous for the immediate construction of the Nicaragua Canal by government aid. No enterprise would do more to promote the prosperity of the South and its seaports than the construction of this canal. The old-time Southern statesmen adapted their theories to the practical needs of their section. The leading Southern politicians of today, except a few men like Senator Morgan, are slaves of maxims.—Louisville Commercial.

The Nicaragua Canal would be worth untold millions to the South. Every business man in this section ought to take an active, vigorous part in urging this great enterprise upon the government. It must be built by national aid or not be built for many years.

THE Port Royal Shipping Co., which established a regular line of freight steamers from Port Royal to Europe last fall, has determined to attempt the establishment of a passenger line, and the first steamer, the "Mexican," a 5000-ton boat, will sail from Port Royal for Liverpool on April 22. This steamer is claimed to be in every respect a first-class passenger boat with every modern convenience and improvement. The fare will be \$55.00. As it is the first attempt to establish from any south Atlantic port a regular line of first-class passenger steamers, this movement will be watched with interest. It is but another indication of the steady expansion of the shipping interests of the South.

The South's Advance in Farming.

The statistics published elsewhere in this issue showing the growth of Southern farm interests as compiled from the census make a remarkably favorably exhibit for the South. The total assets of Southern farm interests increased from \$2,314,000,000 in 1880 to \$3,182,000,000 in 1890, a gain of \$868,000,000, against a gain in the remainder of the country of \$3,000,000,000. The South had \$3,182,000,000 of farm assets in 1890, against \$12,797,000,000 in all other States, but with less than one-fourth as much invested in agriculture as all other sections, the value of its farm products was \$773,000,000, against \$1,687,000,000 for all other States. The total value of farm products of the country in 1890 was \$248,000,000 more than in 1880, and of this \$107,000,000 was the increase in the South. The South had \$3,182,000,000 invested in farming interests in 1890, and the total productions were \$773,000,000, or a gross revenue of 24.1 per cent. on the capital. All other sections combined had \$12,797,000,000 in farm operations, and the product was \$1,687,000,000, or 13.1 per cent. gross revenue, only a fraction more than one-half as much in percentage of production as the South's. It is impossible to get at the net profits, but these figures show how far ahead the South is in the gross product based on the capital invested.

A Southern Exposition in Baltimore.

Two weeks ago the MANUFACTURERS' RECORD suggested the advisability of a great Southern exposition in Baltimore in 1897 in commemoration of the centennial of the incorporation of this city. The Baltimore Sun has taken up the matter and heartily favors the enterprise. The advantages of such an exposition to Baltimore and to the South are so apparent that it seems almost unnecessary to discuss the matter. Situated midway between the North and the South, the most northern of Southern cities and the most southern of Northern cities, Baltimore is the ideal place for a great exposition which would bring the two sections together. With liberal exhibits from every Southern State the manufacturers and business men of the North would come here to study the possibilities of Southern development and the opportunities for investment in this section. Baltimore would be the common meeting-ground on which the North and South would gather as at no other place, and the results would be of untold value to every Southern State. Many millions of dollars and many thousands of people would be drawn to this section. At Chicago the South made a comparatively poor exhibit, but the causes which brought this

about would not exist here. With a great exposition surpassing any that this country has had except those of Philadelphia and Chicago, it will be possible for the South to make such a magnificent showing of its resources as no other section ever made.

In 1895 Atlanta will hold a Southern exposition that will probably surpass any that has yet been held in the South. It will doubtless be worthy of Atlanta and worthy of the South, but in proportion as Baltimore surpasses Atlanta in population and wealth, so should its exposition of 1897 surpass that of Atlanta.

Combining for Mutual Benefit.

The importance of the South and West Grain and Trade Congress, to be held at Wichita, Kans., on April 17, can hardly be overestimated. As already stated in the MANUFACTURERS' RECORD, it is called in the interest of the gulf ports, and its promoters seek to direct the shipments to the eastern seaboard towards Galveston, New Orleans, Mobile and other cities, saving the long overland haul to New York, Boston and Philadelphia; saving time and transportation charges. The movement is not a populist or sectional one, as is charged, nor is it in the interest of any railroad or series of railroads. Mr. G. W. Clement, president of the Wichita Board of Trade, states that the congress is called from purely business motives. An idea of its importance can be gained from the following statement he has sent to the MANUFACTURERS' RECORD:

The growth and development of the South and West during the past decade has increased many fold their demands and products, and left their business methods unchanged, and it is believed that a new order of things will improve the business situation of the two sections and direct the products of that country which lies west of the Missouri river to Southern ports instead of going double the distance to eastern tidewater, and to supply direct that part of Western products that the Southern States demand instead of continuing in the old rut of first shipping the products to Chicago and St. Louis, hundreds of miles out of the way, and allowing those points to reship grain throughout the South. Merchandise bought at Boston, New York and Philadelphia can be shipped by water to Southern ports, and thence shipped to Colorado, Nebraska, Kansas and Oklahoma at a great saving in rail haul, giving an immense tonnage to Southern roads, yet there is but little if any of that business done. Kansas alone in a single year produced 75,000,000 bushels of wheat and 275,000,000 bushels of corn, over 75 per cent of which had to find a market outside of the State, and yet not 5 per cent. of this found a direct outlet to the south, but took the long haul of 1700 miles to New York instead of going south one-half the distance. These and other matters will come before this congress, and not the least important of which is the freight-rate question and why it costs twice as much per ton per mile to haul freight south as east. Savannah, Mobile, New Orleans and Galveston are just as near the grain fields of the trans-Missouri country as Chicago, and there is no good reason why they should not export this surplus and supply much of the goods demanded by the West.

Every commercial organization in the South and West is expected to send five delegates, each railroad in the South and West one delegate, while the mayor of each town and city is entitled to appoint five delegates to represent it.

Production of Pig Iron in Great Britain.

The total production of pig iron in Great Britain in 1893 was 6,829,841 tons, as compared with 6,616,890 tons in 1892, showing an increase of 213,000 tons. The stock on hand at the end of 1893 was 868,730 tons, against 872,095 tons December 31, 1892. In 1890 the production of pig iron in the United States for the first time exceeded that of Great Britain, the difference being 1,300,000 tons in our favor. In 1892 the production of pig iron in the United States exceeded the output of Great Britain by 2,500,000 tons, but owing to the general decrease in our production last year, the difference was only 295,000 tons. It is hardly probable that Great Britain will ever again make any material increase over the highest point heretofore reached. In its production of iron there must be a steady increase in the cost, while with us every year shows a decrease in cost. With the return of prosperous times to the business interests of the world there must of necessity again come an active demand for iron, which will not only tax all of the furnaces we now have, but will necessitate the building of many more. It may be several years before we see such activity, but that it will come is one of the absolute certainties of the future.

There are already some indications of revival in the iron trade of England; in fact, the Board of Trade returns of that country show a gradual expansion not only in iron, but in other lines of industry, and as Great Britain was the first to feel the severe shock of this world-wide depression, it may be the first to recover from it. An improvement there may mark the beginning of an improvement throughout the world.

COLUMBIANS themselves have about decided that the best way to get the people of the North and West to visit this city and realize its "resources and attractions" is to build for their accommodation a fine winter hotel which will draw men of means here for health and pleasure, and enable them to ascertain by personal inspection the manifold opportunities existing here for profitable investments.—Columbia (S. C.) State.

A most excellent way as far as it goes. Columbia ought to have a hotel of this character. It would do great good, but it is not enough. Columbia not only needs to let the rich people of the country know of its attractions by furnishing a good hotel for them, but while hotels help, they don't build cities. Columbia, and Columbia is only used as an illustration of hundreds of other places, needs a live organization whose sole business is to attract attention to the city and to the surrounding country. It needs to make known by judicious advertising and in other ways the attractions of its climate, its advantages for trade and manufactures, and it needs to draw attention to the desirability of the surrounding country for settlers from the North and West.

Signs of Improvement.

Basic City, Clifton Forge, Covington and Buena Vista are four Virginia towns which it may be said were born in the "boom" period. Since that time they have been cited as striking examples of the insecurity of Southern investments. Probably no four towns in this country have been kept more prominently before the financial world than the ones named. They have continually been used as "awful examples" of the risk attending Southern ventures, until people who know nothing of their condition save the failure of this or that venture connected with them have come to regard them in the same light as Pompeii or Herculaneum—not only dead, but buried. This is far from the truth, however. Not only do they still live, but they are beginning to show signs of progress. Their manufacturers and business men are beginning to clear away the cloud of discredit with which wild speculation covered them, and in each one the MANUFACTURERS' RECORD is glad to note a decided business improvement. Two manufacturing plants—one a wagon works and the other a machine works—are about to begin operations in Buena Vista; several industries at Basic City which have suspended will probably shortly be revived with increased capital; a number of enterprises are being put in operation in Covington, while at Clifton Forge new business houses and dwellings planned and in course of construction indicate the location there of newcomers for business and residence purposes.

The fact is that quite a number of sound and profitable enterprises being conducted in these towns have been lost sight of in the hue and cry over the collapse of ventures which had little or no foundation, and which the promoters never expected to see in existence after they had secured their share of the money put into the schemes by outsiders. But the success of the legitimate business is making itself felt and is now beginning to restore outside confidence gradually but surely. It is a hopeful sign to see that what were known as "boom" towns, or rather those which had intrinsic merit, are reasserting their advantages, but on a solid business basis by putting new life into their dormant enterprises.

Where Capital is Looking.

In one of its timely and forcible articles on the progress of the South the Nashville American emphasizes the arguments in favor of Southern investments so often made by the MANUFACTURERS' RECORD in these words:

For nearly four years the surplus capital of the United States has been idle, and, as financial journals now often remark, its owners are becoming anxious to earn dividends. The disastrous experience of many mortgage companies in the West and the steady immigration thence to the South disincite Eastern money to seek investment in the former quarter. The channels of trade and manufactures in the North and East are more or less congested; 5 per cent. is there counted excellent interest. The South, however, offers multiplied opportunities for legitimate development where judicious expenditures will yield handsome returns. The eye of capital has never been turned with more seriousness toward the South than now. Not only are its boundless resources better understood, but the world has perceived in its unequalled comparative solidity during the financial depression of the last three years an object-lesson as to the reserve powers enjoyed by this section in the way of natural advantages which must prove a potent factor in attracting capital.

"Talk Up Your Town."

In a recent public meeting at Cincinnati Mr. Thomas P. Egan made a speech that might well be studied by the business people of every city and town of the South. He pointed out the injury that had resulted to Cincinnati from the lack of that kind of public spirit which makes every citizen interested in speaking a good word for his town and for the business concerns of the town. What he said of Cincinnati applies with equal force to all other places, but especially to many in the South. Probably the best illustration that this country affords, better even than Chicago, are the remarkable results of "talking up your town," as seen in the history of Atlanta. Every man, woman and child in Atlanta considers it almost a religious duty to speak well of the city. Meet an Atlanta man wherever you may, and he will tell you that Atlanta is the best place in the world; that it has the best climate, the most enterprising citizens, the best and biggest factories, and everything else that is good. You never hear him criticize other Atlanta concerns. Everybody unites in praising the city. The result is that Atlanta moves steadily and progressively ahead and accomplishes things that no other city in the South seems to be able to do. The Cincinnati speaker pointed out the good work that could be done in any city by such a spirit of loyalty to its best interests. He gave several illustrations of how outside people had been influenced by talk against local interests. Many cities in the South need to learn the lesson which has been so well learned in Atlanta, and that is the hearty co-operation of everybody in everything that tends to advance the business interests of the place. "In unity there is strength" was never better illustrated than in the progress that is made wherever the business men of any community unite in a steady, persistent work in behalf of their city. The results are always satisfactory, and any town or city that will cultivate such a spirit, and with it adopt every means of making known to the world the attractions of the place, will be sure to reap satisfactory results. "Talk up your town," tell of its good climate, if it has a good one, or of its advantages for manufacturing, or as a place of residence, or of its educational facilities. Whatever it has that is good tell the world about it; and not only tell it through the newspapers, but tell it in private conversation, tell it in your business letters, tell it in condensed circulars that you can send out in every letter that you mail to outside people, tell it day in and day out, year after year, and as sure as the sun shines you will see the results.

"Talk up your town."

The production of gold throughout the world for 1893 is estimated at \$150,000,000, an increase of \$11,000,000 over 1892.

"THE COAL TRADE" for 1894 has been issued by Mr. Frederick C. Saward, New York, of the Coal Trade Journal. This standard work of reference is so well known to all interested in coal matters that it is almost unnecessary to commend it to their attention. Every man interested in coal, whether in the mining or shipping of it or in the ownership of coal lands, should have a copy of this book.

THE WEEK IN THE SOUTH.

Condition of Business and the Latest Features of Southern Progress Summarized.

In surveying the whole field of Southern business enterprises it is seen that while here and there weak points are found, some interests and some sections showing no material improvement, yet the general situation slowly, but steadily, grows better. No one city, and, in fact, no one State makes any great showing of improvement when taken by itself, but the aggregate of advancement made by all is very satisfactory. This is indicated by the fact that the number of new industrial enterprises reported for the first three months of 1894 was 662, against 436 for the preceding three months, being a gain of 226.

The railroad outlook is encouraged by the announcement that the majority of Richmond Terminal security-holders are in favor of the present reorganization plan. Work on about twenty-five miles of new line has been started in Georgia and on an important road in Texas. A group of thirty-six Southern roads report increased net earning of \$125,372, or 7.32 per cent. for January. This is the only section of the country showing an increase, except the coal roads. The extent of the immigration movement is shown by reports elsewhere, which indicate a steady increase in the southward trend of population. Land in lots of 10,000 acres and upward is being purchased in North Carolina, Florida, Georgia and other States for colonies of settlers.

Among the new enterprises noted by the MANUFACTURERS' RECORD this week are the following: An ice factory, a machine works, a gold-mining company and a fruit-growing company in Georgia; a brick-making plant, a gold-mining company, a flour mill and two water-works systems in South Carolina; two lumber-manufacturing plants and a coal-mining company in Tennessee; a \$100,000 silk-making company, a furniture factory, a barrel factory, a real-estate investment company and a \$150,000 gold-mining company in Virginia; a coal-mining company owning 8000 acres in West Virginia; a grist mill and a \$100,000 mining company in Texas; a \$100,000 lumber company in Louisiana; a phosphate-mining and manufacturing plant, three cigar factories and a canal in Florida; a woodworking plant and a flour and a meal mill in Kentucky, etc.

Three Months' Progress.

From week to week the MANUFACTURERS' RECORD has recently pointed out the steady expansion in industrial interests of the South. Of course, any great activity is not to be expected until the general business conditions throughout the country are in better shape, and until the tariff matter is finally settled, but notwithstanding these drawbacks, there is a gradual increase in the number of new enterprises organized, as well as in the enlargement and improvement of old plants.

The gain during the first three months of 1894, as compared with the last quarter of 1893, shows a very decided improvement. The total number of new enterprises organized during the last quarter of 1893 was 436, while for the first three months of this year the total was 662, an increase of 226. This number is larger than during any quarter of 1893 except the first, which showed considerable activity prior to the general depression that came on last spring. In face of the business conditions that have prevailed since last summer this gain is very satisfactory, and indicates that the South, notwithstanding the depressing influences of the tariff agitation, is gradually but slowly getting in position for a decided industrial growth. Comparing the new enterprises during the last quarter with those

during the fourth quarter of 1893, it is seen that the number of machine shops, foundries and woodworking factories has nearly doubled, new textile mills have increased from five to nine, brick works from seven to eleven, canning factories from ten to twenty-seven, ice factories from seven to twenty, electric plants from twenty-one to twenty-four, water works from thirteen to twenty-four and miscellaneous enterprises from 190 to 293. All along the line there has been a general increase, excepting in flour mills.

Description of Industries.	First Quarter, 1894.	Fourth Quarter, 1893.
Iron furnaces,	31	16
Machine shops and foundries,	12	1
Stove foundries,	12	4
Miscellaneous iron and steel works,	122	64
Woodworking establishments,	4	2
Furniture factories,	4	3
Carriage and wagon factories,	3	5
Agricultural-implement factories,	50	47
Mining and quarrying companies,	24	40
Flour mills,	9	5
Textile mills,	1
Cotton compresses,	11	7
Cottonseed oil mills,	27	10
Brick works,	20	7
Canning factories,	24	21
Ice factories,	3	2
Electric-light and power plants,	24	13
Gas works,	293	190
Water works,	662	436
Miscellaneous not in above,		
Total,		

To Centralize Cotton Business.

A company is being formed in Norfolk to be called the Elizabeth River Terminal Co., which has for its object the development of the cotton trade at that point. The plan is to secure ninety acres of land at Swimming Point, near the Seaboard Air Line terminus, in Portsmouth suburbs, and erect compresses, warehouses and wharves of a capacity for handling all cotton received in the city. The bales will be shipped from the company's wharves direct to Europe and received by the carload, as the warehouses will have railroad connection with all lines entering Portsmouth. By means of the new warehouses it is believed a great saving can be effected in transfer and storage charges, saying nothing of the advantage of centralizing the business.

The Letters Tell the Story.

The passenger department of the Queen & Crescent route has been working in the interest of immigration to the South by the publication and distribution of a little hand-book descriptive of "the country where the grass is green ten months in the year, and there are neither blizzards nor cold waves." This little book contains among other things letters from farmers, fruit-growers, gardeners, etc., in the country along the route of the Queen & Crescent in Alabama and Mississippi, recently published in the *Southern States* magazine, of Baltimore, who tell with what success they have met in their various occupations. The personal experiences of these men demonstrate in a practical manner the great advantages Alabama and other Southern States offer to the immigrant. Thousands of copies of this little hand-book have been distributed in the North and Northwest.

Georgia "Hog and Hominy" Proverbs.

Albany Herald: "The hog and hominy movement in southwest Georgia is not on the narrow-gage order. The platform is broad, and there is room on it for all."

Farmers' Light: "The farmers of Georgia have found that the all-cotton system is a bad one, and we are glad to note that they are giving more attention to home supplies. When there is plenty of corn in the crib and meat in the smokehouse there is very little danger of starvation."

Ringgold New South: "'Hog and hominy' is a sure antidote for hard times, and the farmer who is well supplied in this line is the most independent being on God's green earth."

SOUTHERN FARMS AND FARMERS.

How the Number of Farms Has Increased in Ten Years—Figures that Prove Prosperity.

Some very significant figures appear in the census report on farm ownership and cultivation, recently made public. The first feature of note is that during the period from 1880 to 1890, when practically no efforts were made to encourage Southern immigration, the number of farms in the south Atlantic States (Maryland, the Virginias, the Carolinas, Georgia and Florida) increased 16 per cent. There were 12 per cent. more farm owners and 24 per cent. more farm tenants. In Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Arkansas and Texas, comprising the south central group, with the Indian Territory, the increase in farms was 22 per cent., the number of farm owners increased 18 per cent. and the number of farm tenants 22 per cent. Of the latter class 44 per cent. more paid their rent in money in 1890 than in 1880, showing that while there has been a quiet but steady increase in the South's farming population, the Southern tenant farmers have been increasing their resources and placing themselves on a sound financial basis. These figures are more striking when compared with the census reports from the Western and Northwestern States, where the great majority of immigrants located during the ten years ending in 1890. Since 1880 the increase in farm owners is but 9 per cent., less than half of the Southern percentage, while the increase in farm tenants is 29 per cent.

During the last census period the number of farms in all the States increased 555,000, of which 285,000 were cultivated by their owners and the balance tenanted, an increase of 27 per cent. in the whole number of tenanted farms in the country. The size of the individual farms is another interesting feature. The average in 1890 was 140 acres, while in 1880 it was 137 acres. In the south Atlantic and south central States the tendency has been to decrease the size of farms, showing that cultivators believe that in working a smaller area there is more profit. The average farm in the south Atlantic States in 1890 was 134 acres, twenty-three acres less than in 1880. In the south central the average in 1890 was 144 acres, a decrease of six acres. The only other section showing a tendency to decrease in farm size is in New England, New York, Pennsylvania and New Jersey, where the farms averaged two acres less than in the 1880 period. In the West and Northwest the increase was eleven acres, or 9 and 3 per cent., respectively. The only conclusion that can be drawn from these figures is that in the latter section the tendency is to increase individual ownership of large bodies of land and to lessen the number of small farmers, while in the South the reverse is the case.

Another very important fact brought out by the census is the increase in value of Southern farms, implements, live stock and other assets. To the thoughtful observer this increase is truly remarkable. Here are the aggregates in round numbers, omitting the last six figures:

	Land and buildings.	South Atlantic.	South Central.	All States.
1880-90.....	\$1,135	\$1,440	\$13,276	
1870-80.....	894	982	10,197	
Increase per cent..	27.3	46.7	30.2	
Implements, etc.				
1880-90.....	\$36	\$58	\$494	
1870-80.....	31	47	406	
Increase per cent..	18.3	25.2	21.6	
Farm products.				
1880-90.....	\$293	\$480	\$2,450	
1870-80.....	268	398	2,212	
Increase per cent..	9.3	20.6	11.2	
Total assets.				
1880-90.....	\$1,333	\$1,849	\$15,979	
1870-80.....	1,051	1,363	12,104	
Increase per cent..	24.9	46.5	32	

The last heading, perhaps, signifies the financial condition of the Southern farmers better than any other. Compared with the whole country, the south central group increased 46.7 per cent. and the south Atlantic 27.3 per cent. in the value of land and buildings, against an increase of 30.2 per cent. for the country.

The total value of farm products of the South in 1870 was \$666,000,000, against \$1,550,000,000 for the remainder of the country. In 1890 the South produced \$773,000,000, a gain of \$107,000,000, or 16 per cent., while the gain in the rest of the country was only \$141,000,000, or 9 per cent. With just one-fourth as much total assets in farm operations as the balance of the country, the South had \$107,000,000 increase in production out of a total of \$248,000,000.

BUSINESS CONDITIONS SOUTH.

Extracts from Letters to the Manufacturers' Record.

Orlando (Fla.) dispatch: "Business men report collections better for the current month than at any time before in two years. Money seems to be easier, and confidence in the future is stronger than it has been for several years."

Baltimore, Md.—Powell Fertilizer & Chemical Co.: "Business is better than all reasonable expectations, considering the depression."

Smithville, Ky.—A. C. Miller, manager of the Salt River Stave & Milling Co.: "Business is getting better, and I think will still improve as spring advances."

Gulf, N. C.—George F. Edmiston, president of the Black Diamond Coal Co.: "The outlook is not bright, but believe if the Wilson bill was killed or passed that the manufacturers of the country and investors would start their works and open their pockets. The coal at our mines is, in my opinion and also that of others, as fine as the Pennsylvania hard coal. It ignites easier, burns brightly and will last as long as the Pennsylvania hard. We have a vein thirty-two feet and another two feet. Have sunk new slope 150 feet and cleaned out the old supply, and are pumping out the old works (this mine was worked some during the late war for the Confederate government), and we expect to get a daily capacity of 500 tons. It sells well, and we have about 3500 acres of this coal. The vein pitches about thirty-two degrees. Have shipped the coal to Greensboro and Raleigh, and it has captured the market. This is a new operation and the company, only working four months, has orders for over 9000 tons."

Hancock, Md.—Hancock Lumber Co.: "Business with us is improving fast, and but for the low price of produce we would not feel the panic. Orders from exporters and hardwood dealers are coming in with a little more confidence in the future."

Mt. Airy, N. C.—Lowry & Yokley: "Outlook not good. This is our reason for not pushing and getting in shape for business."

Bridgeport, Ala.—Bridgeport Bottling Works: "Prospects very good."

Canton, Mo.—The Canton Canning Co.: "The crop prospect is very good."

Trenton, Tenn.—J. B. Kerr: "Business is a little dull, but is picking up some. Look for good business in near future."

Lancaster, Ky.—R. Kinnaird, mayor: "Think times are gradually getting better and our people are more hopeful—farmers are breaking up more land than usual. With good season, an abundant crop and a settled policy our industries will revive. Lancaster expects to have several industries started as soon as water works are a certainty. We have been promised a planing mill, hemp factory and tobacco factory. We want tobacco men to handle our large crops. It will pay any firm to put up factories here. We raise large, fine crops of any kind of tobacco. No county in Ken-

tucky produces more or better hemp. Garrard county is called Egypt by the surrounding country, because we never fail to have a good corn crop. We invite all who have money to invest to come to Lancaster."

Lake Charles, La.—President S. A. Knapp, of Southern Real Estate, Loan & Guarantee Co.: "As soon as legislation at Washington settles the status of the country and we recover from the Cleveland 'grippe' I have no doubt of a great boom in the South."

St. Petersburg, Fla.—St. Peter, burg Curacao Co.: "The cigar industry is quite prosperous in and around Tampa, Fla.; several new factories are now being built. A railroad just chartered from Tampa to Clear Water Harbor will be pushed to completion as early as practicable."

Fort Mill, S. C.—Millfort Mill Co.: "Business here is not bad, but the low prices of cotton goods makes us feel gloomy as to the manufacturing interests of this place."

Ashland, Ky.—R. H. Vansant & Co.: "Business outlook brightening, but tendency of prices downward. Better times hoped for after the disposal of the tariff bill in some way by Congress. No other new ventures to report at present."

Hampton, Fla.—Wright, Scandrett & Co.: "Business prospect is pretty fair."

Velasco, Texas—J. G. Slover & Son: "Outlook very good."

Kingsville, Ky.—King's Mountain Canning Factory: "Business looking up."

Franklin, Tenn.—M. G. McAlister, manager Franklin Tobacco Works: "Business quiet, but improving. Weather good. Farmers busy planting crops."

Greenville, S. C.—Greenville Saw Works: "Business outlook is brightening."

Rankin, Ky.—Wm. Rankin & Sons: "Business has improved but very little up till the present, but we look for some improvement in the near future."

Newport, Tenn.—Newport Mill Co.: "Business has been very dull, but there are signs of improvement. Our people exhibit more life and seem to be more hopeful. Money is very scarce, and collections, therefore, slow."

Charleston, S. C.—Charleston Basket & Veneer Co.: "Our business for the past year has been good, and we are busy. The outlook for the future seems bright. We think this one of the best sections of the country for the manufacture of furniture and for box factories, as we have all kinds of hard and soft woods in abundance and right at our doors, either by rail or water. A wheelbarrow factory is to be started here with capital of \$20,000; all stock taken; also a hand broom factory. Business in our line is good, and we have been kept busy during the whole winter, working from 100 to 150 hands; now increased to 300 hands. In addition to our basket and veneer works we have a complete set of butter-dish machinery, and will in the next thirty days turn out from 150,000 to 200,000 wire-end butter-trays per day, employing some fifty hands more. We are also making potato and rice barrels in large quantities."

Stock Dealers in Texas.

The recent convention of stock-raisers and buyers in Texas was attended by prominent residents of Kansas City and Omaha, who took much interest in the proceedings. Since the close of the convention they have been visiting Galveston and other cities. The Omaha people are desirous of establishing closer trade relations with the Texans, and say they can offer a market for 200,000 head of Texas cattle yearly. The visitors were shown a number of Texas stock farms, and were surprised at the fine quality of the stock. The Kansas City delegation is thinking of making large exports of dressed meat via Galveston.

THE TIDE TURNING SOUTHWARD.

Immigrants by the Dozen and Hundred Moving into the "Land of Promise" Fulfilled—How the Movement is Increasing—Summary of a Week's Reports to the Manufacturers' Record.

The South is attracting the attention of home-seekers as it never has before.

After a careful review of the situation, based on reports from every part of the Southern States, the MANUFACTURERS' RECORD can say, without exaggeration, far more settlers are locating in them at present than have ever gone southward at any period in the history of this country. But it is only a small beginning—merely a faint sign of an immigration movement which is destined to be astonishing in its extent, and which will increase the population of every State from Maryland to Texas. It is partly the outcome of natural causes which have been quietly working for years in this direction. The letters which are being published in the *Southern States* magazine, of Baltimore, from Northern and Western people, and especially from those who formerly lived in the Northwest, and who have cast their lot south of the Potomac and Ohio rivers of late years, and who have become prosperous through the natural resources of their possessions, have been creating a Southern feeling among their friends and neighbors who were situated in a less favorable climate and State. The business reverses and crop failures in other newly-settled portions of the country have aroused a feeling of discontent in the States so affected and awakened interest in the region where the farmer can raise two to three crops a year of certain products, and where the climate allows field cultivation nearly all the year round.

Such are some of the natural causes which have started the southward movement. Another powerful stimulus has been the policy pursued by the MANUFACTURERS' RECORD and *Southern States* magazine in constantly keeping before their readers the advantages offered to settlers in what is not only the "land of promise," but of promises fulfilled. The result of this policy has begun to arouse the Southern people to a sense of their duty in the cause of immigration and to call the attention of Southern railway companies to the vast importance of settling the rich but vacant territory which so many lines traverse. Although these efforts made in the cause of immigration are almost insignificant in comparison with what they will be eventually, the readiness with which settlers are willing to locate in this section is shown by newcomers in almost every desirable part of it. The hearty response to the promoters of immigration is encouraging to a surprising degree, and those who have noted carefully the movement from its beginning hardly dare calculate to what an extent it will develop within the next two years.

The reader can gain a general idea of the progress of immigration from the following reports received by the MANUFACTURERS' RECORD within a week:

Arkansas.

EXECUTIVE OFFICE.

LITTLE ROCK, ARK., March 14.

There have been several colonies of Nebraska people who have written me for information about Arkansas, but all I have time to do is to furnish them with such printed matter as I have, and do not know whether they have settled in the State, though I hear of quite a number of small colonies which have located in Arkansas. I have just learned of an Illinois colony of twenty-five families which has settled in Johnson county, a Swede colony in Crawford and two German colonies in Dallas county. W. M. FISHBACK, Governor.

The Mississippi Valley.

New Orleans, La.—Maj. G. W. McGinnis, the assistant land commissioner of

the Illinois Central Railroad, says on the subject of emigration to the Yazoo delta: "Our road, besides having agents all over the Northwest, has men in Germany and also in Holland gathering families to settle up our land. There are many residents of the Dakotas and other Northwestern States who want a milder and a better climate, with a soil more fertile than that of the Northwest. All these advantages are possessed by the delta. The colonists who have already taken advantage of our offer and settled along the delta are making money hand over fist. They are raising cotton, corn and vegetables, stock and fruit."

Greenville, Miss.—The settlement of lands in the Mississippi valley is attracting the attention of Mr. Charles S. Williams, a New York capitalist who is president of the Greenville (Miss.) Electric Light Co. Mr. Williams advocates placing colonies of the better class of Italians in this section, and has the hearty co-operation of the Illinois Central Railroad people, so it is stated. It is proposed to bring the Italian families to this country by way of New Orleans. The railroad will pay the expenses of the families, and the planters in that section who own large tracts of land have agreed to go into the matter of disposing of their property according to the United States government homestead law. Mr. Williams states that a very desirable class of immigrants can be secured from the mountainous districts of Italy—people entirely different from the Italian laborers found in large cities.

Along the Louisville & Nashville.

Louisville, Ky.—Col. C. P. Atmore, the general passenger agent of the Louisville & Nashville Railroad, is promoting immigration to the South with great vigor. He says the road has several agents in the Northwest and in Europe, who are sending families down rapidly. It is the intention of the road to put between 200 and 300 families on its line between Paris and Memphis. The Louisville & Nashville is now running home-seekers' excursions from points at a rate of one fare for round trip, with a view to encouraging the movement. It owns many thousand acres of land between New Orleans and Flomaton, Ala., and also between Pensacola and River Junction. On the Nashville, Sheffield & Florence branch there is a Norwegian colony of about 200 families.

Alabama.

Mobile, Ala.—There are two home-seekers' excursions in Alabama coming by the Mobile & Ohio road—one is of parties from Michigan and Illinois, while the other consists of excursionists from Iowa and Nebraska. The first of the party is composed of sixty-five persons, mostly farmers and capitalists, who are seeking homes in southern Alabama so as to escape the rigors of a Northern climate.

Gadsden, Ala.—Arrangements are being made to locate a Swiss colony on a tract of 10,000 acres in either Gadsden or Etowah county.

Decatur, Ala.—The Decatur Real Estate and Immigration Association has been formed to promote immigration to that section on an extensive scale. It includes some of the most prominent business men of the town.

Virginia.

Lynchburg, Va.—Mr. J. W. Ater, of Clarksburg, Ross county, Ohio, who has been in Virginia for some days, left for his home yesterday afternoon. Mr. Ater was here negotiating with reference to the purchasing of land for seven or eight families in his section who desire to come to Virginia. He expressed himself as very much pleased with the lands he saw here, and will doubtless make a favorable report at his home.

Williamsburg, Va.—Many farms in this section have recently been purchased by

Northern and Western men. During the past week several parties from the sections named have been here who will become purchasers and bring their families here to reside. Mr. R. I. Bonner, of Detroit, Mich., with his family, who recently purchased a handsome estate, have arrived, and will at once take charge of their farm. At King's Mill farm, which was recently purchased by a Northern syndicate for \$25,000, many improvements are being made, among which is a new wharf.

North Carolina.

Raleigh, N. C.—There is to be a Danish and Swedish colony in Camden county. Two hundred families are expected during the present year, sixty of these to arrive by the end of May. The commissioner of agriculture is in receipt of a letter from a Mr. Chandler, of Nebraska, who states that he intends to come to North Carolina and will probably settle in Wilkes county. He says he will also bring several families with him who will also settle. Besides raising fruits and other agricultural products, Mr. Chandler proposes to breed stock, and will bring with him a number of Clydesdale, Englishshire and French coach horses, and also improved poultry, hogs, etc. Mr. Norman Astley, of New York, writes also that he has bought a farm in Burke county and will locate there. Both of these gentlemen were attracted to the State through the medium of the hand-book of resources. L. C. Porter, of Minneapolis, Minn., has purchased 14,000 acres of land in Columbus county on which it is stated he will place a colony of Swedes.

Florida.

Leroy, Fla.—Leroy is full of prospective settlers. They have been coming in a steady stream for the last few days. There are seventeen families on their way to Leroy from Missouri. They are traveling in "prairie schooners." Their advance agent is already here.

Hamilton Disston writes that a number of Scandinavians have just arrived from South Dakota to locate on his Florida lands, and that others are to follow them.

Texas.

Galveston, Texas.—It is stated that fully 300 people are coming into the Texas coast country from Perry, Oklahoma, alone, while a number of Illinois people are preparing to locate along the line of the Gulf & Interstate road projected through the State.

Port Lavaca, Texas.—W. H. Thomas has sold 22,000 acres to a Danish society. The papers have all been made out and the land surveyed. A colony is expected to locate soon.

Columbia, Texas.—The immigrants brought in about fourteen months ago by Travis L. Smith and settled near Columbia have raised enough produce to pay off their land notes the day they fell due and to settle all their debts for teams, implements and general supplies, and every one of them has money left over. Some of these people never farmed in the South before, and probably never saw a stalk of cotton or sugar-cane until they came here.

Southern Pipe in Philadelphia.

A Southern pipe company has obtained an extensive advertisement for its enterprise and Southern industries by securing a large contract in the North. The Howard-Harrison Iron Co., of Bessemer, Ala., shipped twelve carloads of iron pipe to Philadelphia. This is the first shipment of a lot of 10,000 tons, for which the company recently secured the contract over Northern competition. It will be used for laying water mains in the Quaker City. The shipment went in a solid train over the Richmond & Danville Railroad, and on each car was a big placard bearing the inscription: "Iron pipe manufactured by the Howard-Harrison Iron Co., of Bessemer, Ala., for the city of Philadelphia."

AN ENCOURAGING PICTURE.

How Industrial Commissioner Power, of the Illinois Central, Finds Conditions in the South.

Industrial Commissioner George C. Power, of the Illinois Central Railway, writes to the MANUFACTURERS' RECORD regarding the business conditions of the Southern States through which that road passes as follows:

"In my opinion the present outlook for industrial growth on those portions of our lines south of the Ohio river has never been better. During an experience of nearly eighteen months in looking for the location of factories, I have never seen the time when there has been so much interest manifested in the South for the acquirement of new industries. Traversing, as we do, the States of Kentucky, Tennessee, Mississippi and Louisiana, in sections of the States where we have no coal or iron to draw upon for raw materials, the character of industries that could operate to success in utilizing the raw materials is necessarily limited to those working cotton, wool, clay and hard and soft woods. The extension of the manufacture of cotton the past year has been greatly curtailed, as the majority of concerns have contented themselves with saving themselves from loss, and have not been disposed to branch out in the way of location of new factories for the manufacture of this staple. In the North the depression has been most general, and has affected, amongst others, the successful operation of woodworking establishments which have been in existence for years. Many of these, which would have sought locations in the South, have had all they wanted to do to keep in existence, without attempting to branch out to new fields.

"In spite of this depressed condition of affairs the fine character of timber and the greater cheapness at which it can be obtained, together with the comparatively new markets open to Northern manufacturers, have induced quite a number of woodworking industries to locate in the South on the line of the Illinois Central and Yazoo & Mississippi Valley roads. Many of these industries have come from Wisconsin, Iowa, Indiana, Ohio and Pennsylvania, and as the character of timber and the prices at which it can be had become better known, the prejudice that exists amongst Northern manufacturers against locating in the South will be gradually overcome, and I do not hesitate to say that within a very few years there will be a large influx of the woodworking industries, now so plentiful throughout those States, for whenever Northern manufacturers have been located along our lines each industry so located has proved the best sort of an advertisement for the country and for the people.

"While the condition of depression has been almost universal throughout the North, I do not find any such condition of affairs south of the Ohio river, especially through the territory through which our road runs. In most cases I find hotels full of traveling salesmen, selling dry goods, shoes, hats, caps, clothing, hardware and other articles which do not come under the head of provisions. The sales of Western provisions in the South have fallen off enormously, and I do not think it is extreme to say that where one hog was raised ten years ago, today there are 100, and the same holds good for corn, while in early vegetables and fruits the increase is astonishing. This hog meat and corn are raised now largely by the holders of small farms, who heretofore have raised nothing but cotton, have depended upon the merchants to take care of it, while buying all other supplies from the merchants. In every place I have been in during the last two months I have interviewed the presidents of the different banks, and they all tell me that they have

more surplus funds on deposit, and that the applications for loans from the small farmers are very much less than they have been for years, and, in many cases, for the first time in twenty years the small farmers have gone out of town with cotton still to sell and money in their pockets.

"As an instance of the self-supporting character of the farmers of the South today, a farmer told me that he had raised on his farm last year all the hog meat necessary to carry him through this present year's crop; he had sufficient corn to last him over this season, with a surplus to sell; he had all his cottonseed, and the only thing he would have to buy would be hay. When asked why he did not raise hay last year he said that he had been too poor to buy a reaper, but this year he had sufficient corn to sell to buy all his hay and the reaper beside, and from this time out he expects to be self-supporting. He had contracted for the growth of five acres of potatoes, seven acres of onions and was going to plant tomatoes to see what the result would be. He told me that he had been able to raise his cotton this last year at a cost of five cents per pound. He said what was true of himself was true of all his neighbors. In a number of places canning factories have been established on the line of this road, which, while they did not produce much revenue to the road, encouraged the farmers in growing tomatoes and other small vegetables for Northern markets, and even if the farmers made no profit on the sale of these fruits and vegetables, they placed them in funds at the time of year when they are ordinarily without any money. Merchants have reported that the farmers are buying more dry goods and a better class of them than they have for a number of years, and that they looked for a very good spring trade.

"In no place along the line of our road have I found any evidence of distress. The only complaint, so far as I can see, is from merchants, who claim that the country at large is in better condition and that in the towns they were not doing so large a business as they had heretofore. Whether this is attributable or not to their old method of doing business, making advances to farmers and handling their crops, supplying them with all they consumed, I am not prepared to say. With the surplus money in the banks and little or no demand for it, there seems but one way in which the capitalists can utilize their capital, and that is in the investment in stock of manufacturing enterprises. I have found them more disposed to subscribe to stock in reputable enterprises than ever before, and it seems to me only a question of a very short time before desirable industries will receive sufficient inducements to locate permanently in the South.

"There is at present a natural distrust for a large number of industries that make application for changes of location, and it is far better for cities and towns to go slowly in securing desirable industries than any that are at all questionable, and it is only after the most thorough sifting that cities should invest in the stock of manufacturing factories. Human nature is so constituted that if 100 factories be located in the South and one of the hundred should prove a failure it would do more harm than the other ninety-nine would do good, and where local capital is necessarily limited the result of obtaining an undesirable industry would be felt for twenty years, and would prove a standing argument against further subscriptions to desirable industries.

"I know of furniture factories in the South which during this last depression have been working not only full time, but half time extra, and I have been shown net results that would be astonishing to furniture men in the North. What holds true of this character of industry holds true of the majority of woodworking industries. A number of manufacturers in the North have

very crude ideas as to their safety in the South, believing they will be looked upon as interlopers and treated accordingly. How erroneous that opinion is and how unjust it is to the South can only be demonstrated by people of the North visiting that section of the country. I am happy to say that of a large number of people who have gone South during this last eighteen months to look for new homes and also for places in which to locate their plants, there has not been an exception but what they have come back thoroughly well pleased with their treatment, and have universally said, in the language of some Indiana men who were recently in the South, that 'they felt more at home after twenty-four hours' acquaintance than they did with a great many of their own townsmen, where they have been thirty years.'

"It only needs the location of some well-known citizens from different portions of the North in the South to have this feeling entirely dispelled and to have them work as they do to have their neighbors and friends to go South with them. So far as the possibilities of manufactures doing well in the South, I am thoroughly convinced that the business that can now pay in the wood-working States, taking into consideration the high price of timber and its scarcity, with the same energy and knowledge of the business applied in the South, would produce very much better results, for, in the opinion of a practical man from Indiana who has thoroughly looked over the situation, 'the opportunities for making money in the South are fully as good as they were in Indiana forty years ago.' He has assured me he will not only locate himself in the South, but will try to get all his friends to locate there as well."

A Prosperous Georgia Town.

COCHRAN, GA., March 3.

Editor *Manufacturers' Record*:

I am trying to get this town to build and operate an electric-light plant, a cotton compress and a cottonseed-oil mill, and would be glad to get figures on each of these industries, that I may be able to talk intelligently. Our little town gets between 8000 and 10,000 bales of cotton a year, and we want a first-class compress of that size to run in conjunction with a cottonseed-oil mill. We also want a small electric-light plant to furnish 300 sixteen candle-power incandescent and seventy-five twenty-five candle-power. The canning factory will be built; the company is organized and it is now looking about for machinery, etc. Our town has about 1800 inhabitants; on the main line of the East Tennessee, Virginia & Georgia, thirty-eight miles south of Macon; we also have a branch railroad running to Hawkinsville, ten miles from here, on the Ocmulgee river (navigable). I would be pleased to hear from contractors and builders of the above-described machinery; also from artisan-well men. The town is out of debt and has money in the treasury, has one bank, a college, three churches, a good weekly newspaper, a splendid climate, and, in spite of the "hard times," has had but one business failure in ten years.

W. H. MOBLEY.

Another Investment Company.

The Security Investment Co., recently chartered at Norfolk, Va., is another indication of the activity of investors in that city and vicinity. Its directors include several well-known residents of the city. The object of the corporation is reported to be chiefly to invest in real estate, although it is authorized to build railroads, erect factories, etc., by its charter. The maximum capital is to be \$1,000,000. The officers are: A. S. J. Gammon, president; George W. Dey, first vice-president; George W. Black, second vice-president; W. D. Pender, secretary and attorney. Directors, the above and R. A. Dodson.

The Value of a Trade Journal.

[FOR MANUFACTURERS' RECORD.]

There are many intelligent business men who read considerable miscellaneous matter, and when they look into a trade journal only glance at the market reports.

It is, however, gratifying to the publishers of trade journals, as well as indicating the tendency of the growth of trade journalism and its beneficial influence, to note the increasing number of intelligent and discerning readers who are becoming more and more interested in this class of literature. They are not merely interested in the bare market reports, but in the editorials, in the specially contributed articles and correspondence, all of which enables them to understand more clearly and to gain a broader knowledge of the subjects which these journals specially represent. There is not an important industry in our country but has one or more journals as an exponent of that industry. In these days the tendency is to work along lines of specialties, and the printing press is called into service to advance the interests of such work.

Many of the trade journals are very ably conducted, and the influence which they exert is far-reaching and of incalculable value.

The American people are the greatest newspaper readers of any nation. But this may be carried too far. The matter one reads in newspapers is usually of such ephemeral character that the better class of readers do not devote all of their reading time to that which will not bring good results, and therefore prefer something more enduring and equally as interesting as the daily newspaper.

It is not many years since I read half a dozen leading daily newspapers published in three or four cities, and I thank kind heaven that my memory has been so treacherous in that respect that I have forgotten most of what I read in those papers. Now I can get what I want of current events from one daily newspaper.

I find nothing more interesting or profitable in that line of reading than the more than half-dozen trade journals, representing different interests and sections of the country, which I receive weekly, semi-weekly or monthly. I look forward to the coming of the next issue as eagerly as the young lady who reads the new novel published in instalments. Many articles published in trade journals are of high merit, being written by the ablest persons in their line of work. Publishers of such journals know that to interest the business man the articles which he publishes, whether editorials, special contributions and other matter, must be discussed in a clear, concise and forcible manner.

The busy man has no time to waste on reading empty, windy stuff. The proprietors of nearly all the influential trade journals are constantly seeking for expressions from the best known and ablest men in their particular line of work. Such persons are always ready to pounce down upon those who have given public expression to their views through the medium of special class journals whenever the views so expressed do not coincide with theirs.

"I cannot agree with the writer," or "I don't believe it," are too frequent expressions.

Now, my dissenting friend, if you are one of that class, I want to tell you that you are just the one that the proprietor or editor of the special class journal is looking for, and if you have any valuable information to impart to an anxiously awaiting world of readers you will be well paid for your trouble in relating it.

It will be no excuse to say that you are not accustomed to writing for publication.

Give valuable ideas, and the editor will dress them up in a suit of Sunday clothes, as it were.

The intelligent reader is wanting more light, information, knowledge and truth.

Neither is the excuse that you have no time to write more than your business demands sufficient excuse to keep back that which will be a public benefit.

Other men just as busy as you find time to write for publication.

But it is not the man who spends his time in clubs, games, amusements and other forms of social enjoyments who is likely to startle the world with some new theory or business problem.

We all love our hours of rest, relaxation from business cares and for study and social enjoyment. This is right, because we owe it to ourselves, our family and to the community in which we live.

But many of us might do more to help others by giving public expression of our experiences and observation and our views on the practical affairs of life. A little time thus spent would not be regretted.

The money-making American is always ready to ask the question, "Will it pay?"

Yes; subscribe and read trade journals and contribute to their support.

I have followed up a single item in a trade journal which resulted, in a financial way, to more profit than the cost of all the numerous trade journals I have ever received.

H. B. WETZELL.

Knoxville, Tenn.

Believes the Present the Time to Change.

ATLANTA, GA., March 3.

Editor *Manufacturers' Record*:

I was brought up a Henry Clay whig and became a free-trader by natural process of observing the effect of what is termed protection. Two years of residence in Pittsburg completed my emancipation. I am confident that many who now uphold the protective idea will in time tire of the uncertainty of the condition resulting, and ultimately find out in the natural law upheld by political economists of removing instead of placing obstruction in the way of commerce. In time of panic it is pronounced unwise to attempt a change, and in prosperous days few care to change, so the existing law stands. The present proposed legislation is not radical enough to cause alarm, and the American people may be trusted not to go very far in the path of error. You are doing good work, and, however, we may differ, I am confident the result of your publication is to greatly benefit me.

WM. RILEY BOYD.

Wise Men

read the advertising pages of the MANUFACTURERS' RECORD carefully because they are always sure to find something of value; it may be a special sale, or an opportunity for investment, or some new machinery, or some one looking for a location for a factory, or a thousand and one things advertised that may concern you. Every man ought to study newspapers, not simply glance over them, but examine in detail the MANUFACTURERS' RECORD, for instance, and he will be sure to find something that can be made profitable in his business. In its news columns and in its advertising pages he will find matter that may prove invaluable in his business operations.

C. W. MAYER, of Philadelphia, has purchased the Cold Sulphur Springs, a well-known Virginia mountain resort. The price paid was \$8000. The tract contains ninety-five acres near Goshen, Va.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises and needing machinery or supplies of any kind will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

Colonel Donan Again Talks About Things Economical and Financial.

WASHINGTON BUREAU,
MANUFACTURERS' RECORD,
ROOM "E," RIPLEY BUILDING,
March 27.

Col. Pat Donan, has given me another of his characteristic interviews on the economic and financial situation and outlook. I met him directly after he had read the paper on coal recently published by Mr. M. Erskine Miller, which has attracted more attention than any similar brochure that has appeared during this tariff discussion.

PAT DONAN ON THE COAL QUESTION.

"The Wilson bill," said Colonel Donan, "as it now stands picks the pockets of United States citizens to enrich Canadian monopolists and to pay royalties to Her Majesty, Victoria of Great Britain and India. This fact is brought out with startling force and clearness in the recent masterly article of Mr. M. Erskine Miller, of Virginia, which I have read with much interest.

"He shows absolutely and beyond all question that the 'free-coal' clause of the pending tariff enormity is a deadly stab at the coal-producing industry of Virginia, Maryland and Pennsylvania in the interest of a gigantic Canadian monopoly.

"He goes into every detail of the cost of mining, handling and shipping coal to Boston from Virginia and from Nova Scotia, and proves conclusively that, without duty, the Canadians can put their coal at the doors of New England factories and mills for \$1.07½ a ton less than our own operators. Even with the present duty of seventy-five cents a ton added, the Nova Scotian coal can be laid down in Boston for thirty-two and a-half cents a ton less than the product of our own mines under the most favorable circumstances. The passage of this bill would give the Nova Scotians an absolute monopoly of the coal trade of New England, and on every ton they may sell a royalty of twelve and a-half cents goes to the Crown—to swell Mrs. Victoria's already well-filled coffers. With the present duty still enforced the Nova Scotian coal dealers can undersell our own. Who, then, is benefited by doing away with it?

"There is some strange and powerful influence behind this move. There are powerful influences urging free sugar, free wool, free lumber, free this and free that, but none of them is so persistent, so mysterious and so potent as those which are pushing the free-coal scheme. Nobody seems to know where the strength comes from which seems bent on committing the democratic party to a measure for pillaging our own people, closing our own mines, cutting down the wages of our own laborers and the receipts of our own transportation lines to enrich a vast Canadian monopoly and pay mighty royalties to the English Crown. A few facts may tend to throw a little light upon the subject.

"The Dominion Coal Co., of Canada, is a gigantic corporation. Its capital is \$30,000,000. It owns coal fields in Nova Scotia ample to supply the continent with fuel. It owns railroads and steamships, and is rapidly adding to its enormous possessions. Its directory includes W. C. Van Horne, of Montreal, general manager of the Canadian Pacific Railroad; Sir Donald A. Smith, K. C. M. G., of Montreal; W. B. Ross, Q. C., of Halifax, and David McKeen, of Cape Breton.

"And who is the president of this \$30,000,000 Canadian monopolistic organization of Q. C.'s and K. C. M. G.'s? Henry M. Whitney, of Boston, a brother of William C. Whitney, of the Standard Oil Co. Henry F. Dimock, of New York, a brother-in-law of William C. Whitney, is one of the incorporators and foremost directors of the company.

"I make no charges, cast no imputations; but watch the men in the Senate and

House of Representatives of the United States who, calling themselves democrats, vote for this monstrous bill to close Virginia, Maryland and Pennsylvania coal mines, cut down the wages of our own laborers, reduce the earnings of our own transportation lines and increase the poverty and suffering among our own people in order to strengthen and enrich a giant Canadian monopoly and pay vast royalties to the Queen!

"The Wilson bill is a tariff bill—a protective tariff bill—an unfair and sectional tariff bill. It has not one feature of a true democratic tariff-for-revenue measure. From headline to tailpiece it is a shameless case of bastardy. It discriminates against the South, and in favor of the North, far more flagrantly than the much-denounced McKinley iniquity. More than that, it discriminates against our own country and our own people in favor of foreigners! It picks the pockets of United States citizens to enrich Canadian monopolists and to pay royalties to Her Majesty, Victoria of Great Britain and India!"

THOMAS P. GRANTY.

More Northern Views of the South.

The increased prosperity in the South, noted from time to time in the MANUFACTURERS' RECORD, continues to attract attention throughout the North. Mr. Henry Frank, of Natchez, Miss., who has recently made an extended trip through the North, has been interviewed by a Democrat reporter in that city. In the centres visited by him Mr. Frank says the greatest confidence was expressed in the future of the South, and it is regarded as having already emerged from the great storm in a good financial condition. The large dealers that he met say that during the recent stringency the Southern merchants and people were paying their debts straight along, as if the scarcity of money was but little felt, while other sections were characterized by great financial and industrial reverses and disasters, the effects of which are still seriously felt in those centres by reason of the great losses entailed by such collapses.

So much confidence is felt in the South that mills and other industries at the North that did not heretofore care for its trade are now anxiously soliciting it, catering to it by every possible means, and are willing to manufacture expressly upon Southern orders. Mr. Frank returns fully satisfied with the present condition of the South, and full of hopefulness for its future.

A Mexican Marble Bed.

Dr. P. Langhammer, of El Paso, Texas, writes to the MANUFACTURERS' RECORD regarding the marble beds in that section of the country, that he controls six quarries, of which four are opened and ready for channels and gadders. From these can be made faces of from six to ten feet, with lengths ranging from seventy-five to 150 feet and fifteen to twenty-five feet deep. The beds are light, dark and medium blue, and several shades of yellow, and are situated two and one-half miles from the Mexican Central Railway and ten miles from Juarez, Mexico, opposite El Paso. The Doctor states that \$8500 will purchase all the machinery, etc., necessary to quarry and prepare the marble for shipment.

More Gold in Virginia.

A number of Washington capitalists, including Messrs. W. T. Riggs and Marcus J. Wright, have been examining the property of A. J. Clifford, near Keysville, Va. Gold has been discovered on this land, and it is claimed that samples assayed have yielded from \$19.30 to \$78.80 per ton. The Washington people have secured an option on the property and are considering the question of its development.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department, on page 141.]

Richmond Terminal Affairs.

The assent of the security holders to the modified plan of Richmond Terminal reorganization has been so general that over 75 per cent. of the bonds are in the reorganization. The only important opposition comes from a party of Louisville Southern security-holders, who claim that they should be protected by a mortgage on their individual property instead of a consolidated mortgage. Another party of bondholders of this line favor depositing certificates with the reorganization committee. It is understood that the opposing faction are encouraged by the report that the Vanderbilts and Rockefellers want the Southern for a link in the proposed chain of roads from Galveston to Newport News, and that by waiting they can force Drexel, Morgan & Co. to come to their terms. The latter, however, have given notice that if the bondholders do not assent before a certain date the road will be dropped from the new plan.

In the advertising columns of the MANUFACTURERS' RECORD will be found an announcement of the time limit for receiving assents to the reorganization plan.

Report About the Erlanger Roads.

It is the general opinion of railroad men that the presence of Baron Erlanger in this country is for the purpose of again acquiring active control of the Cincinnati, New Orleans & Texas Pacific and Alabama Great Southern roads, which are known as "Erlanger roads." These properties were covered by the so-called "Cincinnati extension 58," included in the original Richmond Terminal reorganization plan, but excluded from the scheme embodied in the modified or supplementary plan of February 20. The bondholders who had deposited their bonds with Drexel, Morgan & Co. were notified to surrender their receipts and receive back their bonds. They have been operated as a part of the Queen & Crescent system, but may be maintained on an independent basis under the new order of things.

Another Road Completed.

The Jacksonville, St. Augustine & Indian River has been completed to its present terminus at Lake Worth, and trains are now running from the North via Jacksonville to the resort where the Hotel Royal Poinciana is located. The railroad and hotel enterprises which were carried out by Henry M. Flagler are too familiar to readers of the MANUFACTURERS' RECORD to need present description. The hotel is one of the finest in the country, and situated in a locality which has every advantage of a winter resort. The railroad reaching it extends along the east coast of Florida, and is a part of the Flagler system of lines in that State. It is built with steel rails, and the track and roadbed constructed in the most substantial manner by J. H. MacLennan, of Toronto, Ont., under the supervision of Chief Engineer Charles O. Haines. The extension just opened for operation is a little over 100 miles long.

Baltimore & Ohio Progress.

The Baltimore & Ohio has now a through line to St. George, Staten Island, and if it secures the Staten Island ferry franchise to Manhattan Island, will have an opportunity to deliver freight in unbroken carloads in New York city. A train was recently run direct from St. George to Washington via the Baltimore & Ohio "Royal Blue" line without change.

The Fairmont, Morgantown & Pittsburg division of the Baltimore & Ohio has been formally opened for traffic. The first train

to Pittsburg carried fifty-seven prominent West Virginia citizens, including ex-Governor Fleming, who were entertained by the Pittsburg Chamber of Commerce.

A dispatch from Alexandria, Va., states that the business of the Baltimore & Ohio Railroad there is largely increasing, and it is said that within six weeks over \$25,000 of freights of Alexandria merchants who formerly used other lines have been transferred to the Baltimore & Ohio and the Chesapeake & Ohio.

The New Arkansas Road.

Further details of the Lake Superior, Southwestern & Gulf road have been furnished the MANUFACTURERS' RECORD by J. H. McCarthy, contractor for building the section between Harrison and Little Rock, Ark. Mr. McCarthy writes from Little Rock as follows:

"The Lake Superior, Southwestern & Gulf Company has had its chief engineer, Col. L. S. Steadman, in the territory between Springfield, Mo., and Sabine Pass, Texas, for the past two years. He has been quietly making an examination of the country and its resources, and the company has now decided to build from a point on the St. Louis & San Francisco road near Springfield, Mo., to Little Rock, with some branches into the northern counties of this State that have long been known to be rich in marble, zinc, copper, lead, manganese and timber, while the river and creek bottoms make very rich farming lands and the hills the finest of grazing lands, with springs and mountain brooks in abundance. The contract for the building of the road from Kansas City, Mo., to Little Rock has been let to the Interstate Construction Co., of which Mr. E. I. Rosenfeld, a well-known railroad contractor, is president, and, judging from the manner in which he takes hold of the business that he has in hand, he will soon have the road in operation to this city. The line is not yet all permanently located, but Colonel Steadman has three engineering parties in the field, and we expect to commence construction on this end not later than May 1. There will be several important bridges on the line, the largest of which will be the one over the Arkansas river at Little Rock. I have a contract to build the road from this city to Harrison, Boone county, near the Missouri State line, and will be ready to sublet the work of clearing, grubbing, grading, piling, etc., as soon as Mr. Rosenfeld is ready to put us to work. We have the piling and the trestle work, but the iron bridges will be let to bridge companies and people in that particular line of business by Mr. Rosenfeld."

Naval Stores in Florida.

According to a report from Leon county, Fla., that State is about to make an important addition to its industries. A syndicate represented by L. S. Campbell, it is announced, has purchased 12,000 acres of land heavily timbered, and intends to operate several turpentine farms on the tract. A railroad is to be built from Bloxham, on the Ocklocknee river, to give the producers an outlet to market by way of the Carrabelle, Tallahassee & Georgia road. It will also be used for hauling lumber extensively.

Loans for Improvements.

It is announced that the Baltimore & Ohio Railway Co. has negotiated a loan of between \$5,000,000 and \$10,000,000 for the purpose of completing the extensive improvements now in progress which have been recently alluded to in the MANUFACTURERS' RECORD. It is understood that the minimum amount is \$5,000,000, but that the English capitalists who advance the money will allow it \$10,000,000 if desired.

R. T. GOFF has been appointed superintendent of the Jacksonville, St. Augustine & Indian River road.

Railroad Notes.

THE Seaboard Air Line has opened an office at New Orleans, with Mr. R. E. Tate as agent.

THE New Orleans Traction Co. will use 500 cars on its lines now being built for electric motors.

NEARLY 200 people attended the general meeting of passenger agents at Lake Worth, Fla. The East Tennessee, Virginia & Georgia carried them over its route in a special train, and General Passenger Agent Wrenn showed them every possible attention.

THE General Passenger Agents' Association has elected the following named officers: President, J. C. Anderson; vice-president, W. M. Davidson; secretary, A. J. Smith.

THE Southern Express Co.'s through trains for Florida vegetables will very much improve the condition in which shipments will be received at the markets. The fastest freight schedule has not been equal to the requirements of the business. A great many shipments have reached the markets in bad condition that would have safely come to hand had they not been so long on the way.

THE Abingdon & Damascus road, partly completed between Abingdon and Damascus, Va., has been purchased by Contractor Fortune, who built it, at public sale.

L. MARVIN has been appointed receiver of the Jacksonville, Mayport & Pablo Railway & Navigation Co., which owns a line seventeen miles long, extending from Jacksonville to the seacoast. It is owned principally by Jacksonville people.

AT the annual meeting of the Pittsburg, Wheeling & Kentucky, held in Wheeling, W. Va., the report showed net earnings for the year of \$63,180.65; the fixed charges amounted to \$32,633.69, leaving a surplus of \$30,546.96. The net earnings decreased \$54,429.71 compared with 1892, owing principally to the suspension of work in the many large industries along the line of the road.

AT the last meeting of the Atlantic & Western, Jacksonville, St. Augustine & Indian River, St. John's & Halifax River and St. Augustine & Halifax River roads H. M. Flagler was elected president; J. R. Parrott, vice-president; J. C. Salter, secretary; H. S. Jenison, assistant secretary; S. W. Crichtow, treasurer.

A DISPATCH from New York states that the Little Rock & Memphis road is to be reorganized by the bondholders. This line extends between the points named and is operated by a receiver. It has been entering Little Rock over the Iron Mountain system, but a company has been formed to build another bridge over the Arkansas river, which will give the Little Rock & Memphis an independent road into the city.

JUDGE PARDEE, at Atlanta, has ordered the sale of the Georgia Pacific, one of the principal divisions of the Georgia Central. The Pacific main line extends from Atlanta to Birmingham, and, with its branches, is 375 miles in length. The order was granted on application of the Central Trust Co. of New York.

A DISPATCH from Louisville, Ky., states that President Smith, of the Louisville & Nashville, admits that the Louisville & Nashville, and not the Illinois Central, has purchased the Chesapeake, Ohio & Southwestern.

THE Allen & Boyden Co. has been organized at Raleigh, N. C., to deal in real estate and to locate colonies and individuals on land which is known to be productive. The company announces that it will undertake no "paper" schemes, but will induce homeseekers to settle on North Carolina lands by legitimate methods. Richard Eames is president, and George Allen, secretary.

FINANCIAL NEWS.

Why the Outlook Is Bright.

One of the Southern bankers who feels encouraged over the business outlook is Herman Justi, president of the First National Bank, at Nashville, Tenn. Speaking of business in Nashville and vicinity, he thus expresses himself in an interview with an American reporter:

"Our merchants owe less today than at any time for ten years. They experience no difficulty in getting an abundance of money from local banks to carry on their business. In evidence of this fact I may accurately say that the national banks would be glad to lend today \$300,000 on first-class mercantile paper, such as Boston or Hartford would accept. Our merchants are not extensive borrowers in the East; they find ample accommodations at home. They are discounting their bills now just as easily as they did in the most prosperous times.

"The improvement in their condition is due to a more accurate study and decreased extension of credit than formerly; to perception of the inadvisability of carrying enormous stocks on a falling market, and realization of the expediency of buying oftener and in less quantity; to closer collections, and to the adoption as a proposition the genuine spirit of economy, which, by the way, is characteristic not only of merchants and manufacturers, but of all classes of business men, large and small. It must not be forgotten, too, that the wild speculative fever has subsided. Laxity of business methods in one direction affects others. Stability, system and economy are distinguishing features of the present situation, and each is a factor for progress. The merchant is scrutinizing his credit just as the banks examine their loans. Safety is the objective point of each."

New Financial Institutions.

A branch of the Polk County National Bank of Bartow, Fla., is to be opened at Punta Gorda.

The Florida Investment & Savings Co. has been organized at Jacksonville with \$150,000 capital. A. W. Barrs is president, and L. Furchgott, cashier.

The Keysville (Va.) Building and Loan Association has been organized with C. A. Osborne as president; R. H. Wilson, vice-president, and \$25,000 capital.

The Citizens' Bank has been incorporated at Shelbyville, Mo., with \$20,000 capital. J. J. Hewitt and W. W. Mitchell are among the incorporators.

The Wheeling (W. Va.) Trust & Savings Co. has been chartered with \$20,000 capital to do business in that city.

It is stated that the proposed National Bank of Brunswick, Md., will be managed by U. B. McCandlish, with W. E. Heskitt, cashier.

The Naval Store & Lumberman's Bank has been organized at Cordele, Ga., with \$25,000 capital. D. T. Dougherty is president, and L. B. Jones, cashier.

W. B. Shapard, it is reported, is interested in a proposed State bank at Opelika, Ala.

A bill to incorporate the American Banking & Trust Co. of Baltimore is pending in the Maryland legislature.

It is stated that the Exchange National Bank, recently organized at Tampa, Fla., will be opened for business on April 5.

L. C. Hough and others have incorporated the Kershaw Building and Loan Association, at Kershaw, S. C., with \$50,000 capital.

New Bond and Stock Issues.

The H. mestead Building and Loan Association of Columbia, S. C., has decided to increase its capital stock to \$300,000.

The MANUFACTURERS' RECORD in this issue contains an advertisement of the sale

of \$104,000 worth of Augusta (Ga.) 4½ per cent. redemption bonds due May 1, 1924. They are to redeem the same amount of 7 per cent. bonds due May 1, 1894.

Interest and Dividends.

The Catonsville (Md.) Loan Association has declared a dividend of 5¼ per cent.

The Border State Perpetual Building Association of Baltimore has declared a semi-annual dividend at the rate of 5 per cent. per annum for the term ending March 29.

The Norfolk & Southern Railway Co. will pay its stockholders a quarterly dividend of 1 per cent. on April 10.

The South Boston (Va.) Building and Loan Association has declared a semi-annual dividend of 6 per cent.

The Ohio Falls Car Co. has declared a quarterly dividend of 2 per cent.

The Eutaw Savings Bank of Baltimore has declared an extra dividend of 1 per cent. on all deposits for the year ending March 31, 1894.

Failures and Suspensions.

R. Halt Easley, of Houston, Va., has assigned, it is reported, with liabilities of \$100,000. The failure is said to be partly due to unfortunate ventures in Sioux City, Iowa.

W. M. Kavanaugh has been appointed receiver for the Arkansas Lithograph & Printing Co. at Little Rock. The assets of the company are said to exceed the company's debts.

Simon Eagle, dry-goods merchant at Selma, Ala., has assigned with \$10,000 liabilities.

J. B. Ligon, jeweler at Jackson, Miss., has assigned to E. M. Parker. Assets are estimated at \$3000 and liabilities at \$6300.

H. Silverthorn, jeweler at Lynchburg, Va., has made an assignment to F. W. Whitaker. Liabilities are estimated at \$30,000 and resources about the same.

The Aiken County Loan and Savings Bank, at Aiken, S. C., has temporarily suspended, owing to an order from the court to prevent it from paying out money. It has \$50,000 capital.

Financial Notes.

THE mayor of Baltimore has signed the ordinance authorizing the finance commissioners to sell \$4,000,000 securities in the sinking fund to enable the city to pay off the water loans which become due July 1 next. The loans becoming due July 1 are in two lots—one for \$263,000 bearing 6 per cent. interest, and the other is for \$3,737,000 bearing 5 per cent. interest.

THE Merchants' National Bank of Rome, Ga., has decided to reduce its capital from \$200,000 to \$100,000. The bank has cleared \$90,000 since it was organized in 1887, and has paid out \$60,000 in dividends.

Japanese Investing in North Carolina.

Mr. T. K. Bruner, secretary of department of agriculture of North Carolina, has received a considerable number of responses to his invitation for those interested in the development of kaolin to forward him samples to be treated in Japan. Mr. Bruner has expressed ten of these samples, and reports on the results obtained will be awaited with much interest. It has been stated in this connection that the Japanese commissioner says there would be no difficulty in securing the necessary artisans, potters and decorators to come from Japan, and that he is willing to resign his position as representative of Japan and enter upon the organization of the proposed potteries in North Carolina. The establishment of this important industry as proposed would prove of the greatest industrial benefit to the State, and it is to be hoped that every encouragement and help will be afforded the plan.

SOUTHERN TEXTILE INTERESTS.

[A complete record of new textile enterprises in the South will be found in the Construction Department, on pages 140 and 141.]

MOVEMENT OF COTTON.

Decrease of 3530 Bales During the Past Week.

The increase in the amount of this cotton crop brought into sight for the 204 days of the season from September 1 to March 23, inclusive, is 794,079 bales over the same 204 days of last season, and a deficit compared with the same time of the year before last of 1,515,201 bales. The total brought into sight during the past seven days has been 58,336 bales, against 61,866 bales last year and 77,605 bales the year before, while the aggregates for the first twenty-three days of March are 232,575 bales, against 217,849 bales and 344,518 bales.

The total marketed from September 1 to date is 6,786,271 bales, against 5,992,192 and 8,301,472 for last year and the year before, respectively.

From this time on last year the amount of cotton brought into sight was 708,176 bales, and the year before last 733,907. In other words, after this date last year 10.57 per cent. of the crop was marketed, and after this date season before last 8.12.

The movement since September 1 shows receipts at all United States ports of 5,406,318 bales, against 4,455,424 last year and 6,399,495 the year before.

Overland across the Mississippi, Ohio and Potomac rivers to Northern mills and Canada 657,296 bales, against 751,799 and 1,084,077 bales.

Interior stocks in excess of those held at the close of the commercial year 200,041, against 270,985 and 360,275; Southern mill takings, 522,816, against 503,984 and 457,627.

Foreign exports for the week have been 67,709 bales, against 64,265 last year, making the total thus far for the season 4,320,574, against 3,312,486 last year, or an increase of 1,008,088.

Northern mill takings for the past seven days shows an increase of 2151 bales as compared with the corresponding period of last year, but the total takings since September 1 have decreased 289,808.

The total takings of American mills, North and South and Canada, thus far for the season have been 1,709,613, against 1,984,201 last year.

These include 1,166,953 by Northern spinners, against 1,456,761.

The Denison Cotton Mill.

It is probable that the Denison (Texas) Cotton Mill will be put in operation in the very near future, a new company having been organized last week having that end in view. The new company has incorporated as the Red River Cotton Manufacturing Co., and Dr. J. M. Ford, who purchased the Denison mill several weeks ago, is the principal promoter of the enterprise. Messrs. C. S. Cobb, E. H. Hanna, W. B. Munson and J. B. McDougald are among the incorporators. The capital stock is placed at \$320,000.

A New Silk Mill in Virginia.

An important industry will shortly be put in operation at Keysville, Va., by the Virginia Silk Manufacturing Co., which has just been organized with a capital of \$100,000. The directors are A. J. Milliken, of Keysville; Arthur Pedley, of Patterson, N. J.; John T. Goolrick, Hon. S. S. Yoder and J. M. Bartlett, of Washington, D. C. Mr. Goolrick has been elected president; Mr. Pedley, vice-president; Mr. Bartlett, secretary, and Mr. Yoder, treasurer. The factory buildings are almost completed and the entire equipment of machinery is on the ground. The plant

will, it is claimed, when in full operation employ 600 hands, and the company will endeavor to commence operations very soon. Plans for fifty cottages to be built for the operatives are now being prepared.

Notes.

THE Valasco Oil Mill will add carding gins to its plant for handling Sea Island cotton grown by the Barry settlement of Georgians and Carolinians on Bastrop creek. Some of those farmers have forty or fifty acres in Sea Island, last year's experimental crops having, it is said, proved the Texas staple to equal any in America.

THE Coosa Manufacturing Co., of Piedmont, Ala., shipped 10,000 pounds of yarn to a Philadelphia firm last week.

THE Rock Hill (S. C.) Cotton Factory has received sixty of the 200 looms recently ordered, and is now putting them in position. These looms are intended to weave only white goods, and the additional 140 will soon arrive.

THE Graham (N. C.) Cotton Mills has resumed operations after a suspension of six months.

THE knitting-mill department to A. C. Scherr's woolen mill at Keyser, W. Va., is about to be put in operation and about eighteen additional hands will be employed. Mr. Scherr will spin his own yarn for knitting purposes, and all-wool hosiery and underwear will be made; he also manufactures blankets, flannels and shirts.

THE committee engaged in soliciting stock for the new cotton-mill company at Abbeville, S. C., is meeting with much success, over \$15,000 having already been subscribed. Messrs. J. F. Lyon, R. M. Hill and others are among the incorporators.

THE Lanett Cotton Mills, of West Point, Ga., in course of erection for months past, are about ready for operations, and the company expects to start next month. The equipment is 26,000 spindles and 700 looms. Seven hundred hands will be given employment.

MESSRS. ATWOOD VIOLETT & CO., of New Orleans, write: "The indication of a gradual revival of business confidence multiplies daily, and this opinion is fully borne out by the increasing resumption of work in our numerous workshops and factories throughout the country. Legitimate causes would seem to favor an advance in values, especially as applied to cotton. A larger part of the existing depression has been occasioned by exaggerated crop estimates, which at this time are discredited. We are still 108,425 bales behind the crop of 1890, which was 7,300,000, and we are 794,000 in excess of the last crop, which was 6,700,000 bales. Not only the stocks at known interior towns show a decided decrease, but we are today in receipt of advices from twenty-one unenumerated towns in Mississippi showing stocks of 18,000, against 32,000 last year. The question of this crop, whether large or small, has ceased to be one of importance. We have suffered already the effects of large crop ideas, and the future course of prices will depend on the trade outlook, as well as prospects of the coming crop. Weather conditions thus far have been highly unfavorable in the greater part of the cotton belt as regards the preparation for the new crop, and it is reasonable to assume that this crop is so far decidedly a late one."

A CORRESPONDENT writing to the MANUFACTURERS' RECORD states that Mr. F. G. Kerr, of Van Buren, Ark., president of a company now building a hotel in that city, desires to correspond with an experienced hotel man with a view to leasing the hotel.

MECHANICAL.

Perfect Electric Bonding of Rail Joints.

By J. H. Vail, of New York.

This subject is one that is forcing itself upon the notice of street-railway companies because of deficiencies that practical use has developed in the methods heretofore and even now practiced. The mechanical troubles of rail joints have existed since the inauguration of the first railway, and great improvements have been made, but

with No. 6 galvanized iron wire whose greatest ampere capacity is sixty-seven amperes, or if with No. 6 copper, with ampere capacity of 180 amperes.

The relative restriction of current capacity is easily perceived. The relative resistance of the bonds can be readily determined.

In the new rail bond under consideration, my object is to provide a system of rail bonding by the use of which the rail joints may be made of nearly equal electrical conducting capacity with the body of the rails themselves, whereby there will be no

In the process of manufacture of these rail bonds, the flexible conductors will be so manipulated that when the head of the rail bond is cast the metal will form itself completely around the cable, thus assuring a perfect union of metals and continuity of conductive capacity.

Further, in order to avoid electrolytic action, we can completely insulate the cables in any suitable manner, the insulation being preferably such as will withstand the action of the moist soil throughout their exposed portions between the heads A.

In addition to the bonding of the rail

The value of this surface contact will be improved by cleaning the surface of rail (under bond head) free from rust and scale.

The work should be so well executed as to draw these surfaces tight together in contact, and when finished the joint can be hermetically sealed by one or more coats of plastic asphaltum varnish.

Perfect union is essential to avoid electrolytic action at the surface contact between iron and copper.

With this bond, the act of riveting thoroughly expands the metal of the stud and positively fills the hole in the web of the rail like a hot rivet upset in a boiler plate. We thus secure perfect mechanical union and at the same time the desired flexibility.

The style of bond having a single rivet or stud at the end permits a movement at the joint, caused by constant track vibration. This movement seriously loosens the contact, eventually creating a high-resistance joint, and the bond frequently breaks off at the head.

The heavy double and triple studs in the improved form of multiple bond absolutely prevent this trouble.

Close supervision over the work of rail bonding is of utmost importance, as the ordinary workman does not always appreciate the care required to make a good electrical connection.

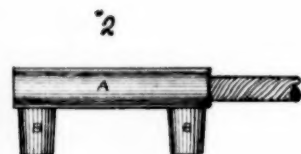
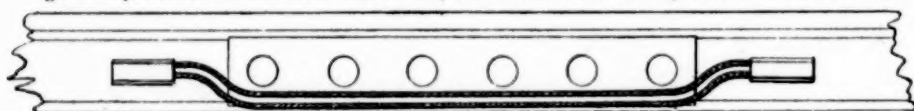
There is no reason why this rail bond should not be as lasting as the track itself.

These multiple rail bonds contain much more copper than the usual form, but are not excessive in cost. Their real economy is obvious because of great durability and the largely increased conductivity obtained through the track.

In many systems the drop in potential can be reduced seventy-five to 100 volts by the application of these rail bonds, and a higher general efficiency of the system surely results.

The New Lawrence "Special" Side-Suction Pump.

In the accompanying illustration is shown the new "special" side-suction centrifugal pump manufactured by the Law-



END OF BOND.

HALF SIZE.

THREE WIRE BOND.

PERFECT ELECTRIC BONDING OF RAIL JOINTS.

now comes the electrical bond, and the two combined have not diminished but increased the difficulties. It has been found that a system of track with faulty rail bonds will give a shock to animals and possibly to human beings should the same be brought into actual contact in such a manner as to complete through them the broken circuit. It will be readily understood how difficult it is to maintain proper inspection of the electric bonding where the bonds are covered up by the street pavement. Under such conditions the track circuit and the bonding escapes inspection until excessive coal consumption, loss of current and other troubles force themselves upon the attention of the street-railway management.

My object is not now to set forth well-known troubles, but to describe how they may be specifically remedied by an improved system of electric bonding, using the Vail multiple rail bond.

The sectional area of the rail bonds heretofore used has been much less in conductive capacity than the sectional area of the rails so bonded, and the mechanical work has not been of substantial and durable character. As a result, the flow of current through the rails has at the rail joints been greatly restricted because of the high resistance of the rail bond itself, and additionally the defective electrical connection made by the small rivets used. By reduced conductivity and increased resistance of the circuit, the flow of current is restricted, the speed of the cars is reduced and the working of the motors at best efficiency is impossible. These combined defects make serious inroads in the coal pile, largely increasing the fuel requirements beyond what they would be if normal conditions prevailed. The only perfect bond is one which will furnish at the joint nearly equal conductivity to the rail itself; the mechanical and electrical connection must be far superior to existing methods.

Careful calculations prove that the rails themselves, if properly bonded, have large conductivity when properly utilized.

As an illustration, a single track of 56-pound rails, reduced to the basis of copper, is equivalent to a copper rod whose diameter is 1.533 inches. The same rails have a safe carrying capacity of current equal to 786 amperes.

The rail joints are frequently bonded

unusual resistance to the flow of current at the joints and the equalization of potential throughout the system is largely assisted; also to provide the necessary high degree of electrical contact between the rail bonds and the rails, which in the arrangements heretofore employed has been lacking.

The rail bond heads A, shown in Figs. 1, 2, 3, 4 and 5, are substantial pieces of metal, each having formed in one piece with it studs B, adapted to be driven into holes in the rails, the studs B of one head being driven into one rail and the studs B of the opposite head being driven into the adjacent rail. The heads are made of such length as to enable the employment of two or more studs B, and the inner side of each is provided with a wide shoulder a, which, when the rail bond is in position, comes into close electrical contact with the rail. Thus the head of the bond for its whole length is in close contact with an equal area of the rail, and this large area of contact increases the efficiency of the electrical connection additionally to the increased contact provided by the two or more extra large studs.

The two heads of the rail bond are connected together by parallel conductors of such number as may be required for different weights of rails, with the object of making the conducting capacity of the bond substantially equal to that of the rail. By employing a plurality of wires connected with common heads, I obtain the necessary conductivity in a single unitary rail bond, and at the same time, by using stranded cables between the bond heads, preserve such flexibility as is required in manipulating the bond when applied, and also during its permanent service.

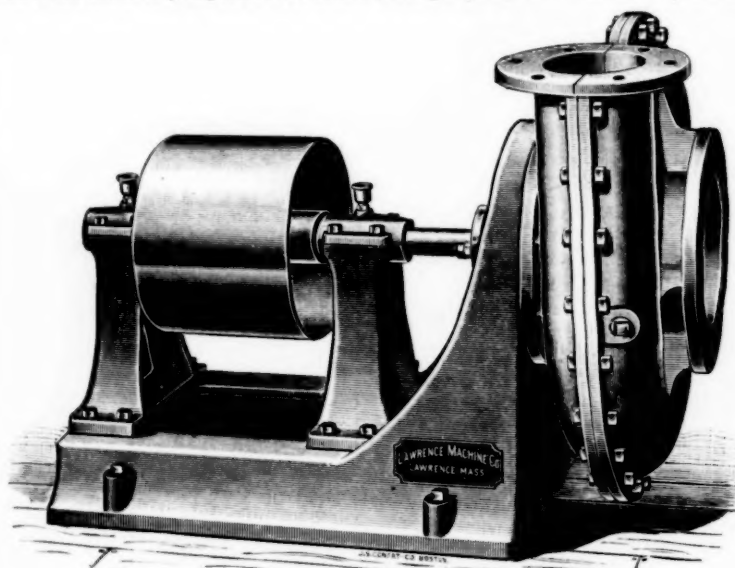
The number and size of cables will vary according to the car service and the current-carrying capacity of the rails; and the number of studs and area of contact of the heads are also varied so that the conducting capacity of the attached bonds shall be very great.

For rails of small cross section, say of forty to fifty-six pounds per yard, the bond having two studs at each end and two large stranded cables in parallel will be made of sufficient conductivity.

For heavy rails, from seventy to ninety pounds per yard, bonds will be made with three stranded cables in parallel.

joints, the cross bond between the opposite rails of the track at intervals is easily and thoroughly accomplished. I employ for this purpose a double or compound bond; the short portion is employed at the rail joint, and a longer section continues from the cross bond to the opposite rail. The bonding of the rail joint and the cross bonding are thus affected by the use of a single continuous head whereby the labor of constructing the track is reduced and the efficiency of operation is improved.

The mechanical connection of the rail bond to the rail is very important, for herein



THE NEW LAWRENCE "SPECIAL" SIDE-SUCTION PUMP.

rests the electrical vitality or efficiency of the union.

This mechanical connection must be as near a perfect metallic union as it is possible to secure. As a result of many years' personal experience with electrical work, it is found that we must make our mechanical joint very large in area of contact (compared with the cir. mils. of conductors) if we would have a low resistance joint.

The contact head of the rail bond under consideration provides this large area in an eminent degree. We not only have the very large studs in multiple, but also an ample surface contact on under side of bond head that is of permanent value.

rence Machine Co., of Lawrence, Mass. This pump is especially designed for use in bleacheries and dyehouses, as well as other branches of manufacturing where rapid-pumping machinery is required.

Both in design and construction it presents a number of novel features, which its builders claim entitle it to consideration as a great improvement over the common type of side-suction pumps. Among the advantages which it possesses, the following are enumerated: The pump shell is securely bolted to the hood of the base in such a manner as to allow (by simply loosening a few nuts) the pump to be swiveled upon its own axis without detach-

ing it from the base or disturbing any of its rotating parts. This allows the discharge pipe to be taken off at any angle or in any direction. The shell is so constructed that it may be changed from a right to a left-hand pump by simply reversing the shell, and at the same time reversing the runner on the shaft. This can be done in an hour by any mechanic. This feature of allowing the position of both suction and discharge pipes to be changed, or of swiveling the pump upon its base, is entirely novel, and is not found in other pumps of this type. The shaft-bearings are mounted upon planed surfaces, are always in line and require no adjusting. The pulleys are large, capable of easily transmitting the required power and insuring freedom from belt slipping and the troubles resulting therefrom. The workmanship and design, as well as the materials of construction, are of the best. The pump shells and stands are secured to the bed-plate or planed surface. No chipping strips or fitting by hand are employed.

The builders, after a long and extensive experience in designing and constructing all classes of centrifugal pumping machines, offer this special pump to the trade as being well adapted for the uses indicated, and will guarantee its satisfactory operation in every case. Although they claim that this pump is the best as well as the cheapest of its type, in view of the improvements which have been made in its construction, it cannot be classed with the high-grade improved double-suction centrifugal pumping machinery of which they are also the manufacturers and patentees. The "special" Lawrence pump is built in three sizes with an economical capacity of 200 to 1300, and discharge pipes four, six and eight inches, respectively. All inquiries for further information should be addressed to the Lawrence Machine Co., Lawrence, Mass.

An Interesting Steam Towing Device.

The steamer Orion, of the Boston Tow-boat Co.'s fleet, now at Roncador Reef to attempt to rescue the historic Kearsarge, has as a part of its equipment a steam towing apparatus built by the American Ship Windlass Co., of Providence, R. I. The distinctive features of this apparatus are that by means of its driving and cushioning steam cylinders there is provided an elastic steam cushion, without which the hawser would be continually straining and frequently breaking. A manilla hawser, although it is more elastic than the steel hawser, is very bulky to handle or to stow on a barge, and it also becomes very expensive on account of its ordinary wear and tear. A steel-wire hawser will last apparently for an almost indefinite time without stranding or even straining, as appears from practical use. The resistance of the towbarge is borne entirely by the steam pressure in the cylinders. The wire hawser is wound on a drum that is driven by a pinion gear on the crankshaft of the engine, which meshes with the gear on the drumshaft. This machine has a regulating, reducing steam valve in which the opening is increased or diminished according as the strain on the hawser increases or diminishes. The action of the machine is as follows: In a seaway as the vessel pays off, thus increasing the strain on the hawser, the drum begins to revolve and to pay out the hawser; this action opens the regulating valve and increases the steam pressure in the cylinders until the pressure is sufficient to equal the strain; then if the strain decreases on the hawser the pressure in the cylinders will revolve the drum and wind the hawser in; in this way the machine is prevented from paying out the whole of the hawser, and only enough is paid out to relieve the extra and momentary strain on the hawser, and thus prevent its injury or its breaking. When the tow-barge casts off the hawser, then the regu-

lating valve is disconnected and the machine becomes in effect a simple hoisting drum to be started to wind up the hawser.

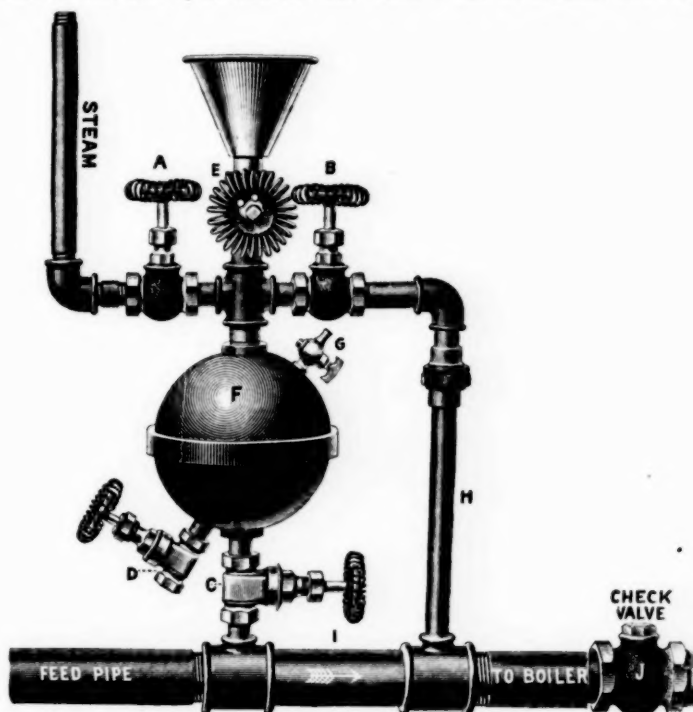
The Young Gravity Lock Nut.

In the minor parts of railroad fittings there is one article which has proven of great attraction to investors, and that is the lock nut. The number used is so great that there is constant inducement to patent new devices. On this page we present a cut of the Young gravity lock, which has been on the market for several years and has proved its merit by practical use. It is now



THE YOUNG GRAVITY LOCK NUT.

being used by some of the most prominent railroads in this and other countries. The manufacturers claim it has been approved by the leading engineers in England, Canada and the United States. The Young patent reversible lock nut is not a spring, and therefore cannot deteriorate in use. It has no sharp edges to injure the threads of the nut or the bolt, or, as the makers say, "it does not cure evils by destruction," but



VICTOR BOILER COMPOUND INJECTOR.

makes use of a natural law. It will be seen that it embodies the principle of the jam nut, giving additional bearing to resist the strain, and that it depends upon gravity to hold the jam nut from turning back. Its action is entirely independent of the quality of material or workmanship. The dependent weight acts to hold the lock, and hence the nut, to place. It is threaded to suit the bolt and can do no injury to the thread or to the nut. The manufacturer of this device is the Young Lock Nut Co., of 150 Broadway, New York city, from whom further particulars can be obtained.

Boiler Incrustation.

There can be no doubt in the minds of those who have given the matter their careful thought that there are a great many manufacturers who lose money because they do not avail themselves of the many new appliances the use of which would enable them to lessen their operating expenses. This is particularly true of users of steam apparatus—not as much so of engines as it is of boilers and their auxiliaries.

Every practical steam-user is familiar with the evils of boiler incrustation. Boilers which are allowed to become incrustated

are a source of loss to the owner. They are hard to steam, more quickly worn out, oftentimes, on account of the increased temperature necessary in the furnaces, are oxidized or burned, and, what is even more important, an incrustated boiler consumes an excessive amount of coal compared to one in proper condition.

Every work on steam engineering contains the results of experiments on incrustated boilers. As compared to a clean boiler, one having a scale one-sixteenth of an inch thick requires 15 per cent. more fuel; one quarter of an inch, 60 per cent. more fuel, and one half an inch, 150 per cent. more fuel. These figures need no comment. For the purpose of injecting into boilers compounds for removing scale, the Victor boiler compound injector was produced by the Leavitt Machine Co., of Orange, Mass. It is one which will inject a compound either dry or in liquid form under any head of steam at any time, and may be operated either by steam or water.

The accompanying illustration shows the design and construction of injection, which is made in the best manner of the best material.

The method of filling and operating is as follows:

By Steam—Close valves A, B and C; open drip D to drain chamber F; open valve E and fill chamber with compound,

oil or material to be introduced into the boiler; then close E; open C, B and A in order named.

Without Steam—Close valves A, B and C; open drip D to drain chamber F; open valve E and fill chamber with compound, oil or material to be introduced into the boiler; then close E; open C and B, leaving A closed.

When filling chamber open vent G to allow the air to escape.

Be sure to have pump, injector or city water feeding to boiler while operating compound injector.

In attaching injector to feed-pipe be sure and have side pipe H towards the check valve J, same as shown in cut.

The company has received many letters from users of the injector, all of whom say that it does the work required in the most satisfactory manner.

THE "Hand-book of Water Works Statistics and Fire Equipment for 1894" has been issued by the Technics Publishing Co., of New York city. This work is most valuable as a reference book, containing as it does statistics from every town or city in the United States and Canada containing 1000 inhabitants or more and many reports from smaller towns.

Brick-Making in the South.

At the recent meeting of the National Brick Manufacturers' Association in Chicago, Hon. A. S. Blaffer, of New Orleans, read a paper on "Brick-making in the South" which gave his hearers an idea of what has been done in this section in manufacturing building material. Among other statements made by Mr. Blaffer were these:

"With a large amount of crude material to draw from, the South affords every inducement for the prosecution of her manufacturing industries, and when her people took advantage of these resources brick entered very extensively into this general development. Brick-making, until then, was carried on almost exclusively by manual labor, and very much in the same way the primitive methods that had been employed for many ages before were still in use. The creation of a large and active demand for brick throughout the South greatly accelerated the adoption of more extensive and modern methods in their manufacture.

"The Centennial Exposition concentrated at Philadelphia all that art and science could conceive. There was found displayed every improved appliance for the manipulation of clay then known to the art. That year was marked by the opening of many new works throughout the whole Southern section.

"One of the most noticeable features of the Cotton Centennial Exposition, held in New Orleans in 1884, was its complete collection of brick-making machinery. A large number of prominent manufacturers in this line throughout the United States were represented, affording a large field of selection. This resulted in the establishment of the first successful modern yard in the State of Louisiana. Machinery then supplanted the hand molder nearly everywhere; improved kilns of the up and down-draft pattern were substituted for the old casing kiln, and every facility for the economical handling of the product was introduced. Then a remarkable activity and improvement of the brick industry was inaugurated, and has continued unabated until today. Large and extensive works are now located at Richmond, Louisville, Memphis, Charleston, Atlanta, Birmingham and New Orleans, where before these cities were contented with any brick that would serve for ordinary construction purposes. Now there is a healthy competition to improve the quality and artistic effect of the material, so that brick-making has become an exceedingly intricate and diversified art, requiring large capital and practical knowledge of the business.

"We need many well-stocked farms, more saw-mills and brick-yards, for these are the surest foundations of prosperity. If our progressive development in the brick industry has been slow, its growth has been steady and healthful; and the outlook is not only hopeful, but stimulating in the highest degree."

Making White Brick in Virginia.

An important addition to Virginia's industries is the manufacture of a fine quality white brick made from a deposit of white clay, while most white bricks are, it is said, made white by artificial means. These brick burn very hard and make a very attractive appearance. They are being used in the new and magnificent Jefferson Hotel, of Richmond. They are not affected by the weather, it is said, and hence do not discolor. These bricks are being manufactured by the Powhatan Clay Manufacturing Co., of Richmond, which owns the white-clay deposit referred to. An order for them has been received for use in the construction of a store on Broadway, New York. It is one of the interesting signs of the times to find Virginia brick being shipped to New York for a big Broadway building.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

LIVE AND LET LIVE.

Education In Cotton Oil.

II.

MEMPHIS, TENN., March 17.

Editor Manufacturers' Record:

I have been much struck with the great educational value of the oil mills to the South. For generations the South has been unused to manufactures and devoted almost wholly to agriculture and commerce, and has imbibed little of the manufacturing spirit and training. Each oil mill at the South has thus formed a sort of nucleus around which popular interest could centre and in which the most valuable lessons of thrift and economy could be learned. In its diversity, extent and general success the manufacture of cotton oil is the pioneer manufacturing industry of the South, and has educated merchants, farmers, lawyers, physicians, in the school of manufactures, and many have graduated from subordinate positions in oil mills and are now engaged successfully in manufacturing in other lines on their own account.

Believing, as I do, that the South will ultimately devote a large share of her attention and capital to manufactures, it seems to me that the owners of a cotton-oil mill in any place, however insignificant, have a trust imposed on them from which they cannot escape.

Fidelity to contracts, wisdom in making steam, economy in operation, skill in finance, improved processes and machinery—all these are subjects to which the oil mills must turn their attention more and more as the years go on, or they will not only be untrue to the trust imposed on them, but will fail of that great success which has given to so many American manufactures a world-wide reputation.

In manufactures the military maxim may well be reversed—in time of war prepare for peace. Fortunate, indeed, is the manufacturing enterprise that has not had to struggle for existence the past year. It will profit little for the future unless the experience of the past is taken to heart. There are many things in the cotton-oil industry that remind me forcibly of the Arkansas farmer who wouldn't mend his leaky roof in fair weather because he didn't need it then, and didn't mend it in wet weather because it was raining. The demand for cotton oil has grown to magnificent proportions, and the supply has kept pace with the demand. There is scant elbow-room in the business now. With good nature, good feeling and good sound common sense all may stand comfortably well, if they cannot lie on velvet cushions. A little bad temper and punching of elbows and the whole body may go down together.

There may never be a millenium in cotton oil, and wrong and injustice, selfishness and greed, suspicion and distrust, will doubtless go on to some extent to the end of time, but there never has been a season in the history of cotton oil when there was a better opportunity for men interested in cotton oil to realize the force of the old story, that no member of the body can suffer without the whole body suffering; no better opportunity to recognize that all branches of the industry are mutually dependent, nor has any better time arisen to correct abuses as far as mere mortal man can correct abuses and keep them corrected.

Commerce is *not* now, never should have been and never ought to be in lands where the golden rule of commercial Christianity is preached, and happily practiced sometimes, too: "Live and let live."

Let us have more of this golden rule in

cotton oil, and if an organization of any sort is formed and has no more elaborate creed than "live and let live" it may count for one of its members, even if only in the primary class. EDWIN L. JOHNSON.

The Markets for Cottonseed Products.

NEW YORK, March 27.

The steadiness last noted continues, and in many instances a fractional advance over the prices last quoted has been secured. The improvement in lard has probably something to do with the change, although there is a weaker tallow and grease market to offset this favorable influence. The real cause of the present little spurt lies probably in the fact that soapmakers and other manufacturers who use cottonseed oil have been delaying necessary purchases to the last moment, looking for further decline in the price, and now, finding that sellers are not very uneasy at present prices, they paid prices asked by receivers. There is scarcely much else to the situation, except that oil being cheap, the market will be very sensitive to any increase of demand. This seems to be recognized by the larger companies, who, by the way, are holders of good round quantities of oil, and who are apparently making a stand to check the drifting condition of the market. They should succeed if helped along by some improvement in the export demand. The latter is still very slow from all quarters. Rotterdam is reported steadier, with a slight improvement in the volume of sales, but business there is reported still unsatisfactory. Prices of barreled prime summer yellow here have ranged during the past week between 30 and 31 cents; prime crude between 25 and 26 cents. At the South prices of prime crude loose at the mill ranged between 21 and 22 cents. The following quotations are for barreled oil on the spot: Prime crude, 26 cents; off crude, 24 to 25½ cents; prime summer yellow, 31 cents; off summer yellow, 30½ cents; prime white, 33 to 34 cents; winter yellow, 35½ cents; choice summer yellow butter oil, 32 to 33 cents; cottonseed soap stock, 1¼ cents asked; cottonseed meal for all rail shipment from the West, \$23 25 New York points and \$22 50 for delivery ex dock here. Market slow. ELBERT & GARDNER.

NEW ORLEANS, March 26.

Trading in cottonseed products in this market has been very limited, owing partly to several holidays which have intervened. Trade in general is very much depressed, and cottonseed products have been no exception to the rule. The foreign demand has been very small, owing principally, we presume, to the fact of a rumor that some of the oil shipped abroad and sold at ridiculously low prices would be brought back to this country; however, there is no positive foundation to this rumor. Buyers still seem to think that the market will go lower on crude material, but it is our opinion, owing to the fact that the mills are rapidly closing down, that stocks held by them are being gradually reduced, and buyers will soon find that those mills able to hold have confidence in the future market, owing to the gradual depletion of stocks, and consider that prices have reached the bottom and will henceforth continue to advance. From what we can learn stocks held by the Western packers are very limited, and that henceforth they will be compelled to enter the market in order to replenish their stores enough to carry them until the new season. However, the reports from foreign markets do not appear at all encouraging, and it may be that the balance of the season will drag along at present prices. We quote prime crude oil f. o. b. mills in this market and tributary points at 21½ to 22½ cents, while 20 cents is being bid for Texas crude loose at mill. There is a scarcity of summer yellow here at the moment, and it may be nominally quoted at 30½ to 31 cents, with the

supply outside of the Union Oil Co practically exhausted. We quote prime meal jobbing at depot in carload lots at \$19 50 to \$20.00 per ton of 2000 pounds, with a firmer tone, due to the fact that last week has shown some inquiry for fertilizer, but with very few sales having been made; prime meal per ton of 2240 pounds f. o. b. for export we quote at \$21.50 to \$21.75; cake per ton of 2240 pounds f. o. b. for export, \$21.50; foots, 1½ to 1¾ cents; soap stock, 1½ to 1¾ cents; linters—A, 3½ to 3¾ cents; B, 3 to 3½ cents; C, 2½ to 2¾ cents, according to style and staple.

JAS. RAINEY & CO.

ROTTERDAM, March 12.

Refined cottonseed oil remains exceedingly dull, and prices are declining every week. The markets in America are depressed for all kinds of grease articles. England is buying very little butterine on our market, because the Australian and other kinds of butter are so cheap. The weather has been soft and wet during the past month. The consequence of all these facts has been that the consumption of cottonseed oil has been very limited here during the past month.

The warehouse directors have published the statistics of this article for the month of February. The official figures are as follows:

	Gross weights.	Kilos.
Stock on February 1—Rotterdam.....	2,516,600	
Arrivals in the warehouses—Rotterdam.....	2,629,736	
Deliveries from the warehouses—Rotterdam.....	628,138	
Stock on February 28—Rotterdam.....	4,518,198	

The stock has increased during February about 2,000,000 kilos, and amounts up now to 4,518,198 kilos, or about 22,000 barrels. These figures prove that not much cottonseed oil has gone into consumption. The American Cotton Oil Co. is now quoting its brands Union and Aldige, which are of excellent quality, at 30 guilders delivered terms, but brokers are telling that this company would certainly accept bids at much lower prices for good quantities. Other choice brands are to be obtained at about 28 to 29 guilders, but are hardly salable at this price. The butterine manufacturers will not buy cotton oil unless they may have the oil at very low price. For instance, they are offering for good oils about 26 guilders per 100 kilos delivered ex warehouse. This price is equal to about 32 to 33 cents per gallon f. o. b. in the American ports. In our market some thousand barrels of oil have arrived of very unsatisfactory color when mixed with oleo, and these parcels have been sold at about 25 guilders per 100 kilos. Money is most plentiful on our side. My bankers are inclined to pay advances on my consignments to an amount of \$400,000, and I can hold the goods just as long as I desire. Therefore, if there are oil refiners in America who wish to consign their goods to our country I beg to state that I advance about 75 per cent. of market value, and that I can hold the goods just as long as the gentlemen who consign the goods desire. Some New York commission merchants have published in America that on our market some parcels have been sold below the value because the bankers would not pay advances. This is, however, quite untrue, and money is very abundant here. I advance about 75 to 80 per cent. of market value, and protect sight drafts drawn for every amount. G. W. SANCHES.

Cottonseed-Oil Notes.

THE cottonseed-oil mill at Rockdale, Texas, is still running at its full capacity. The company has enough seed on hand to run until the 1st of May.

THE citizens of Gatesville, Texas, have decided to build a cottonseed-oil mill. An enthusiastic meeting was held on the 17th inst., at which a committee was appointed to confer with contractors.

THE price of cottonseed in Memphis,

Tenn., is now \$10.00 to \$11.00 per ton. The season for seed is nearly over, although there is still a fair volume held in reserve by planters. The recent decline in cottonseed oil is the chief cause of the drop in seed.

THE following suits were filed in the District Court at Belton, Texas, against the Empire Oil Mill Co., of Temple, Texas: T. L. Hollingsworth for \$1284 80; J. Z. Miller, Jr., for \$10,227, and R. L. Hellin for \$19,779 27. Attachments were issued in each case, and the machinery and other improvements levied upon. It is said that the high price paid for seed last fall and the decline in the price of oil mill products have to some extent caused the present embarrassment to the company.

Peanut Oil Made in Tennessee.

A few months ago the MANUFACTURERS' RECORD published several articles from Mr. Edward Atkinson regarding the value of peanuts for oil-making purposes. The Tribune, of Jackson, Tenn., in a late issue reports that the Jackson Oil Mills has undertaken to manufacture peanut oil. The Tribune says that the company ground 2700 pounds of peanuts into meal and pressed it for oil, using the same machinery that is used in making cottonseed meal and oil. Mr. Murray, of that company, states that peanut meal is largely used as an article of food in the German army. The oil, he says, is similar in color and character to cottonseed and olive oil, and can be used freely for the same purposes. "Peanut meal," says Mr. Murray, "is splendid food for cows and a most excellent fertilizer, and the oil is as good in culinary purposes as lard or cottonseed oil."

ELEVEN peanut-cleaning factories have formed a combine in order to maintain the price of peanuts, which will be known as the Virginia Peanut Association, with Mr. K. B. Elliott, of Norfolk, as president, and a board of directors composed of those interested in the various peanut factories of Virginia.

An Important Texas Improvement.

The improvement of Aransas Pass is a project which, when completed, will be of great importance to Texas commercial interests. As already detailed in the MANUFACTURERS' RECORD, the work of deepening the channel at this point was begun some years ago, but abandoned for lack of funds. Since that time the property-owners in the vicinity have formed an association to further the improvement and have raised a bonus to be given the company or individual who would secure a certain depth of water over the Aransas bar.

A syndicate, which includes A. M. Fulford, of Baltimore, and New York and Philadelphia parties, has, it is claimed, decided to undertake the improvement in consideration of the bonus offered. Mr. Fulford advises the MANUFACTURERS' RECORD that a curved breakwater will be built on the north side of the pass, so located as to co-operate with the curved jetty already constructed on the south side of the entrance. This improvement, he says, is in accordance with the plan of Prof. Lewis M. Haupt, of Philadelphia, a well-known maritime engineer. Mr. Fulford adds: "Wharves will be built on Harbor Island. A 14-foot channel will be cut through Turtle Cove and Corpus Christi bay, and one of like depth through Aransas Pass to Rockport. As a result a great impetus will be given to the productions and commerce of this whole section. The San Antonio & Aransas Pass Railroad Co. will be compelled to increase its transportation facilities in the near future, while it is expected that considerable of the Mexican trade now going via Tampico will be diverted to Aransas, entering Mexico by way of the Mexican National road."

PHOSPHATES.

The Fertilizer Industry in 1893.

In the United States the manufacture and consumption of chemical fertilizers has increased rapidly ever since the opening of the South Carolina deposits; fully one-half of the product is consumed in the cotton States but as the rich soils of the North and West are gradually being exhausted, the use of fertilizers in those sections is increasing. The following table shows the production and consumption of fertilizers in the United States since 1890:

Consumption	1890.	1891.	1892.	1893.
Tons.	Tons.	Tons.	Tons.	Tons.
Alabama.....	40,000	55,000	40,000	45,000
Florida.....	20,000	25,000	20,000	35,000
Georgia.....	200,000	230,000	175,000	280,000
South Carolina.....	125,000	130,000	110,000	115,000
North Carolina.....	95,000	105,000	90,000	90,000
Tennessee.....	30,000	35,000	30,000	35,000
Kentucky.....	15,000	20,000	15,000	20,000
Mississippi.....	12,500	15,000	10,000	15,000
Arkansas.....	10,000	10,000	10,000	15,000
Louisiana.....	10,000	15,000	10,000	25,000
Texas.....	12,500	10,000	5,000	10,000
Virginia.....	70,000	80,000	55,000	50,000
West Virginia.....	25,000	30,000	25,000	25,000
N. Eng. States.....	105,000	110,000	100,000	105,000
Western States.....	75,000	80,000	75,000	80,000
Middle States.....	350,000	370,000	305,000	285,000
Total.....	1,195,000	1,340,000	1,070,000	1,225,000
Production.....	1,250,000	1,360,000	1,365,000	1,350,000

Prior to 1888 the estimated production was 1,020,000 tons in 1885, 1,099,500 tons in 1886 and 975,000 tons in 1887. In 1862 Great Britain manufactured 200,000 tons of chemical manures and in 1890 800,000 tons. The production for 1893 is estimated at 850,000 tons, about one-half being consumed in the United Kingdom and the remainder exported.

The world's supply of crude phosphate and guano as given by the best official sources is as follows: South Carolina, 560,000 tons; Florida, 425,000 tons; Belgium, 400,000 tons; France, 400,000 tons; West Indies, guano, 30,000 tons; South America, guano, 45,000 tons; Russia, 70,000 tons; Germany, 50,000 tons; Spain, 40,000 tons; England, 30,000 tons; Canada, 15,000 tons; Norway, 20,000 tons, and North Carolina, 2000 tons—total, 2,087,000.

The countries of Europe are estimated to have produced during 1893 the following amounts of acid phosphates: France, 440,000 tons; Belgium, 275,000 tons; Germany, 550,000 tons; Holland, Sweden and Norway, 150,000 tons; Italy and Switzerland, 100,000 tons; other countries, 100,000 tons.

The world's consumption of commercial manures is as follows: United States, 1,225,000 tons; France, 1,000,000 tons; Germany, 1,445,000 tons; Great Britain, 1,000,000 tons; other European countries, 800,000 tons—total, 5,470,000 tons. The consumption in Germany of the various kinds of fertilizers is given as: Acid phosphates, 500,000 tons; slag, 350,000 tons; bonemeal, 70,000 tons; sulphate of ammonia, 50,000 tons; potash salts, 220,000 tons; nitrate of soda, 250,000 tons; precipitated phosphates, 5000 tons—total, 1,445,000 tons.—Gustavus Memminger, in the Engineering and Mining Journal.

The Tennessee Phosphate.

The MANUFACTURERS' RECORD has received an analysis of the phosphate rock discovered a few months ago in Hickman, Lewis and Wayne counties, Tenn. The analysis was made at the N. P. Pratt Laboratory in Atlanta, Ga., from samples secured in Hickman county. It is as follows: Moisture .83, sand and insoluble matter 5.66, lime 44.70, magnesia .29, carbonic acid .73, sulphuric acid 31.94, sulphur 5.07, metallic iron 4.54, water of combination, fluoride, etc., 6.24, alumina 0.00, lime carbonate 1.66, bone phosphate 69.74, iron sulphide 9.61.

Several tons of the rock have been acidulated at the Nashville Fertilizer Works, and further analysis shows that it compares favorably with the South Carolina and Florida phosphates. The iron and sul-

phur are in the form of pyrites, and hence are unobjectionable. The phosphate so far discovered lies in strata varying from four inches to four feet in thickness. Several companies have become interested in the deposits and intend working them. The Southern Iron Co., of Nashville, controls a large amount of this phosphate property.

Phosphate Markets.

OFFICE MANUFACTURERS' RECORD, BALTIMORE, March 29.

The local phosphate market is quiet, and the inquiry for both land and river pebble continues light, while a moderate business is being done in these grades. Foreign buyers are taking the greater part of the spring and summer output, and prices are generally steady. Receipts of rock for the week were 715 tons by the schooner E. A. Sanchez from Port Tampa. Among the charters reported are the schooners Lida J. Lewis and Susan B. Ray, Ashley river to Baltimore, and Blanche Hopkins, Charleston to Baltimore. A. L. Tareau & Co. report charters and clearances as follows: Steamship Joseph Colby, Port Tampa to Baltimore; schooners Augustus Welt, from Port Tampa for Cartaret, N. J., on the 22d, with 1762 tons phosphate, from the Bone Valley mines; Senator Sullivan, from Port Tampa on the 23d inst., with 950 tons of phosphate for Baltimore, from the Terra-ciea Phosphate Co.'s mines. We quote prices as follows: South Carolina rock \$5.00 for Charleston, \$4.75 for Ashley river and \$5.00 to \$5.25 for Ashpoo, S. C., all f. o. b. Florida rock is firm at \$5.25 to \$5.50 for 60 per cent. river pebble, \$5.50 to \$6.00 for 65 per cent. and \$6.25 to \$6.50 for 70 per cent., all f. o. b. Charlotte Harbor or Tampa.

FERTILIZER INGREDIENTS.

The general market for ammoniates is quiet, with a light demand from manufacturers. Buyers are not making contracts for fall at present prices, expecting lower values. Late advices from the West report stocks light at Chicago and Kansas City, with holders very firm in their views, and ask outside figures. Nitrate of soda is firm and advancing.

The following table represents the prices current at this date:

Sulphate of ammonia.....	\$ 3.75 @ \$4.00
Nitrate of soda.....	2.20 @ 2.25
Hoof meal.....	2.35 @ —
Blood.....	2.50 @ —
Azotine (beef).....	2.45 @ 2.50
Azotine (pork).....	2.45 @ 2.50
Tankage (concentrated).....	2.30 @ 2.35
Tankage (9 and 20).....	2.10 @ 2.15
Tankage (7 and 30).....	1.90 @ 2.00
Fish (dry).....	26.00 @ 27.50
Fish (acid).....	18.00 @ 20.00

CHARLESTON, S. C., March 27.

The market here remains pretty much the same as last week, shipments being light and contracts for future delivery scarce. The tone of the market is firm, and all indications are a rise of a point or two in the price by June. The local consumers are still holding off. The producers are confident of better times, and are actively operating their plants. The Farmers' Mining Co. has now its two dredges at work in Coosaw river, the Delaware having started last week. Prices quoted are about the same—\$4.50 crude, \$5.00 to \$5.25 hot-air-dried, \$7.50 ground rock f. o. b. Charleston. The coastwise shipments were: Per schooner E. G. Height, 700 tons for Baltimore; schooner Spartan, 900 tons for New York. The export shipments from September 1, 1893, to March 24, 1894, were 63,000 tons, against 61,000 tons for same date last year.

Phosphate and Fertilizer Notes.

THE schooner Warner Moore cleared from Fernandina on the 22d inst. for Baltimore with 650 tons of phosphate rock.

THE Early Bird Phosphate Co., in Marion county, Fla., which has been idle for the past month putting in new washers, will resume work next week.

It is stated that Col. L. M. Weir, of Tampa, Fla., has just organized in Buffalo a new company, known as the Buffalo Bone Phosphate Co. Some of the leading capitalists of Buffalo are interested.

MESSRS. BENTON & UPSON, of Jacksonville, Fla., report a good demand for phosphate machinery. They shipped last week a 100 horse-power boiler and large pump to the Camp Phosphate Co., which is opening a new mine at High Springs, Fla., and a similar boiler and seventy-five horse-power engine was shipped to the Carlisle & Blanton Phosphate Co., recently organized at the above place.

THE movement in fertilizers from the port of Charleston, S. C., for the six months ending February 28, 1894, are as follows: September, 4357 tons; October, 4940 tons; November, 10,271 tons; December, 11,843 tons; January, 72,312 tons, February, 114,124 tons, making a total of 217,847 tons, against 221,791 tons for the corresponding period in 1892-93. Of the shipments during the past six months 215,031 tons were by rail and 2816 tons by steamer.

THE phosphate companies at Blue Springs, Marion county, Fla., and down the river are actively engaged developing territory. Messrs. Pine & Little have leased forty acres of land on Blue Springs river and have nearly completed an Adams phosphate plant and a spur from the S. S. O. & G. Railroad line.

CHARLESTON parties have leased the lands of Doctor Weston and G. Fisk, some 600 acres, on either side of the Blue Springs river, agreeing to take out not less than 5000 tons of phosphate rock a year and to pay \$1.00 a ton royalty. They will put up extensive works and mine on a large scale.

A CONSOLIDATION has been effected by which the Sulphur Mines Co. of Virginia, the Atlantic & Virginia Fertilizer Co., of Richmond, and the Monumental Chemical Co., of Baltimore, are united, and the business of the three plants will be conducted by the Sulphur Mines Co. of Virginia. The Sulphur Mines Company is already the largest producer of pyrites in the United States and now becomes one of the largest producers of sulphuric acid, its capacity being 22,000 tons per annum.

THE British steamer Sledmere arrived at Fernandina on the 23d inst. from Baltimore consigned to the Anglo-Continental Guano Works for a cargo of phosphate. She will take out to Hamburg 2500 tons. The Alachua Phosphate Co. will ship about 1000 tons of rock by the Sledmere. The British steamer Rothsay began loading at the elevators at 2 P. M. on the 23d and finished on the 24th inst. Her cargo will be 2550 tons of Dunnellon rock. She cleared for Stettin, Germany, on the 25th inst.

WORK at the river phosphate mines of South Carolina is about to be resumed, and the outlook for the future is much brighter. Since the cyclone of August, 1893, very little has been done, and the State's treasury has received but little benefit from the territory. The following figures show the amount of the phosphate royalty received since August last: In November, 1893, the sum of \$7151.90 was received from the Farmers' Mining Co., and in December no royalty was received at all. The Coosaw and Beaufort Mining Cos. paid into the State during the month of January \$3273.61. In February the total amount received was \$1008.94, of which the Coosaw Company paid \$756.10 and J. C. Nelson \$252.84. During the current month the only royalty paid has been by the Coosaw and Beaufort Companies, the former having paid \$3074.56, and the latter \$1983.73. All of the phosphate companies are now hard at work preparing to resume operations in the territory under the rules and regulations adopted some time ago by the State board of phosphate commissioners.

Iron Markets.

CINCINNATI, March 24.

The week has shown considerable more activity, and a number of good-sized contracts for pig iron have been closed. Most of the large orders have specified that deliveries shall run from five to nine months. The number of sellers is less now than one year ago, but there are enough to give buyers the benefit of severe competition, and prices have been gradually forced lower. The present basis is so reduced that there should be a feeling of greater confidence among consumers, and this will come as soon as the demand for finished materials increases.

Several inquiries for large lots, running up into the thousands of tons, have been received and are under consideration. Some of them possibly were to test the market, but others were for the purpose of getting options in view of work on which they were bidding.

Shipments are going forward rapidly from the South and Alabama stocks are being reduced. A visit at the furnaces shows that nearly all grades excepting Nos. 1 and 2 foundry are in short supply.

A new freight tariff will be issued by railroads north of the Ohio river, reducing rates to New York and New England points. It is hoped this will help the Southern brands in maintaining their place in Eastern mixtures.

We quote for cash f. o. b. Cincinnati:
Southern coke No. 1 foundry.....\$11.00 @ \$11.25
South coke No. 2 foundry and No. 1 soft.....10.00 @ 10.25
Hanging Rock coke No. 1.....12.50 @ 13.00
Hanging Rock charcoal No. 1.....16.00 @ 17.00
Tennessee charcoal No. 1.....14.00 @ 14.50
Jackson county stone coal No. 1.....14.50 @ 16.00
Southern coke, gray forge.....9.50 @ 9.75
Southern coke, mottled.....9.25 @ 9.50
Standard Alabama car-wheel.....16.75 @ 17.50
Tennessee car-wheel.....16.00 @ 16.50
Lake Superior car-wheel.....16.50 @ 17.00

We quote for cash f. o. b. New York:
No. 1 foundry lake ore coke iron.....\$15.00 @ \$15.50
No. 2 foundry lake ore coke iron.....14.50 @ 15.00
No. 1 American Scotch.....15.00 @ 15.50
No. 2 American Scotch.....14.00 @ 14.50
No. 1 standard Southern.....13.00 @ 13.25
No. 2 standard Southern.....12.00 @ 12.25
No. 3 standard Southern.....11.50 @ 11.75
No. 1 standard Southern soft.....12.50 @ 12.75
No. 2 standard Southern soft.....12.25 @ 12.50
Standard Southern car-wheel.....18.50 @ 19.00

We quote for cash f. o. b. Chicago:
Southern coke No. 1 soft & No. 2 fdy.....\$11.00 @ \$11.65
Southern coke No. 2 soft & No. 3 fdy.....11.15 @ 11.40
Ohio Scotch softeners No. 1.....13.00 @ 14.00
Lake Superior charcoal No. 1 to 6.....15.00 @ 15.50

We quote for cash f. o. b. St. Louis:
Southern coke No. 1.....\$11.50 @ \$11.75
Southern coke No. 2.....10.50 @ 10.75
Southern coke No. 3.....10.25 @ 10.50
Southern gray forge.....10.00 @ 10.25
Southern charcoal No. 1.....15.50 @ 16.00
Missouri charcoal No. 1.....12.00 @ 12.50
Ohio softeners.....14.50 @ 15.00
Lake Superior car-wheel.....16.50 @ 17.00
Southern car-wheel.....17.00 @ 17.50
Frick's Connellsville foundry coke.....4.50

We quote for cash f. o. b. Philadelphia docks:
Standard Alabama No. 1 X.....\$12.50 @ \$12.75
Standard Alabama No. 2 X.....11.50 @ 11.75
Strong lake ore coke iron No. 1 X.....14.50 @ 14.75
Strong lake ore coke iron No. 2 X.....13.50 @ 13.75
Lake Superior charcoal.....17.00 @ 17.50
Standard Alabama C. C. W.....18.50 @ 19.00

ROGERS, BROWN & CO.

Reducing the Cost of Mining.

One of the ways by which the Tennessee Coal, Iron & Railroad Co. economizes in mining is shown by the system employed at its Whitwell collieries, in Marion county, Tenn. The mines are situated on the side of Cumberland mountain. There are three openings in the face of the mountain, and the coal is brought by means of tram-cars to the head of a double-track incline at the central opening and there dumped into bins. From the bins, trip-cars, carrying five tons each and running in pairs on both ends of the cable, are filled. The incline is nearly a mile long and is controlled by drums at the top with powerful hand brakes and automatic fan governors. The use of powder in the mines is largely avoided by undermining in the day and allowing the settling of the roof to loosen the coal during the night. The mines are drained by siphons, so arranged as to be primed by one man without stoppage. So completely has the force of gravity been utilized that there is not a steam boiler on the work. The output of the mines is about 1000 tons per day.

market in these countries. The bark Inca cleared this week with a cargo of 532,342 feet for Montevideo; schooner Crockett with 319,291 feet, and the bark Pendergast with 352,070 feet, both for Havana, Cuba. The total shipments for the week aggregated 2,091,678 feet, and since September 1, 1893, they amount to 39,297,653 feet, against 46,848,691 feet for the corresponding period in 1891-92. Lumber and timber freights are steady, and there is a good inquiry for handy-sized tonnage for the West Indian and Central and South American trade. Rates to the West Indies are \$5.00 to \$6.00 per thousand feet; coastwise, \$5.25 to \$5.75; Rio Janeiro, \$12.00 in American gold, and Mexico, \$7.50 to \$8.00. Timber to the United Kingdom is quoted at 28s. to 30s. per load for hewn and £4 7s. 6d. to £5 for sawn. Steamer rates are quoted at £5 10s. to £5 12s. 6d.

Beaumont.

BEAUMONT, TEXAS, March 26.

The lumber market remains in about the same condition as at last report, and the general situation is unchanged. There is a fair demand for all classes of material, and sellers are disposed to make concessions in many cases in order to effect sales, thus weakening values and deranging the general market. The improvement in the lumber market will depend largely on the agricultural outlook, and, with bright farming prospects, we may look for a good trade in lumber. The export business continues active, and all the river mills are busy with orders, working up to their full capacity. This strong export movement at Sabine Pass will have the effect of checking any decline in prices, as there must come a Western demand when stocks will not be excessive on account of the amount of lumber going to foreign ports. Five vessels are now at Sabine Pass loading lumber, and the aggregate amount to be taken by them will be 2,000,000 feet. There are five more cargoes booked to be taken by vessels to arrive, and between now and the middle of April about 4,000,000 feet will go forward. Manufacturers and shippers are very much encouraged at this active movement for export, and look for a steady improvement in the future. At Orange the weather during the past week has been wet and outside operations have been somewhat restricted, no very large shipments having been recorded at any of the mill offices. Shipments by rail have been somewhat lighter than usual, while contrary winds interfered with the fleet of vessels. Prices do not fluctuate much, and yard stocks are complete, with cars plentiful, so that no order hangs long on the shippers' books. The Orange Lumber Co., the D. R. Wingate Lumber Co. and the Bancroft Lumber Co. are cutting lumber on full time. The L. Miller Shingle Co. and the A. E. Smith mills are both busy. The Litcher & Moore Company's dry-kilns will soon be ready, as they expect to have the work upon them finished by the 1st of April.

Southern Lumber Notes.

THE shipments of crossties from Georgetown, S. C., last week were very large. The Viking, one of the largest sailing vessels that ever entered the port, is now taking on a cargo of crossties for New York.

RECEIPTS of oak staves at Shephard, Texas, are at present very large. They are intended for shipment to Hamburg, Germany, via Velasco, Texas. Hicks & Martin, of Logansport, La., are the shippers.

THE saw mills of Messrs. Anderson & Cameron, at Saron, Texas, and of the Trinity County Lumber Co., at Groveton, resumed operations on the 19th inst. All of the mills on the line of the Trinity & Sabine Railway are now running. During the depression in trade stocks have been reduced, as the mills were shut down. A

recent shipment from Trinity county, probably the first of its kind from that section, consisted of three carloads of cooperage stuff consigned to a company of brewers in Bavaria.

JAEGER BROS., large lumber dealers, are building a two-mile tram railway at Roderfield, W. Va., to connect timber lands with the Norfolk & Western Railway. They have 750,000 feet of poplar ready to cut into boards as soon as their mill, which has a daily capacity of 30,000 feet, can be removed to the woods.

THE town of Josseland, Texas, received during 1893 8410 cars of logs, aggregating 18,053,602 feet; shipments amounted to 1019 cars, aggregating 14,329,310 feet. The Josseland Bros. own the mills and control the lumber trade of this locality. They ship lumber to all points from Mexico to the Dakotas.

A SPECIAL from Clarksville, Tenn., states that Harris & Buquo, of Erin, have just closed a trade for a tract containing 4000 acres of white-oak timber in that section to James A. McGregor. This is one of the largest transactions of the kind ever made in this portion of Tennessee. It is stated that two stove mills are to be established on these lands.

MR. J. O'BRIEN, of Stillwater, Minn., has recently visited southeast Texas, where he has been prospecting for the purchase of large timber tracts. It is said the tract of land which he intends to purchase contains 300,000 acres of excellent yellow pine, which Mr. O'Brien will develop and ship largely through the port of New Orleans. He left that city last week for New York, where he expects to consummate the deal for the Texas property.

Building Activity in Baltimore.

The amount of capital which is quietly being placed in building and manufacturing ventures in Baltimore and its suburbs this spring has already reached surprisingly large figures, which promise to be extensively increased before May 1. The fact that several manufacturing plants were to be moved to larger quarters in order to increase their facilities was recently noted in the MANUFACTURERS' RECORD. Among these are the Detrick & Harvey Machine Works, the Ellicott Manufacturing Co., the Campbell-Zell Iron Works, the White & Middleton Gas Engine Co., the new bar-rytes mill, one of the largest box factories in the country, etc. But aside from these, the following list of building enterprises planned or in process of construction will give an idea of the magnitude of the city's progress: Two bank and office buildings, two passenger-railway stations, a city college, a hotel, a music hall, two electric-power stations, a high school, three office buildings, two fire-department houses, two hospitals, several large warehouses, six churches, two synagogues, two graded schools, one bank addition, eight additions to schools and colleges each over \$15,000 in value, a stone bridge, a Pythian temple, a courthouse, 280 dwellings of \$2000 and over each, for which permits have been taken out since January 1, as well as a number of miscellaneous buildings. A conservative estimate of the amount of money to be spent in building the various structures, including machinery, etc., for factories and power plants, results as follows:

Factories and power stations.....	\$580,000
Business and public buildings and bridge.....	5,015,000
Dwelling-houses.....	825,000
Total.....	\$6,420,000

Much Smoke, Little Fire.

THE MANUFACTURERS' RECORD emphasizes that it has frequently asserted before, that so much hue and cry has been made over Southern financial reverses that the prosperous conditions all have been almost

entirely overlooked in some sections of the South. Among the many journals which agree with the MANUFACTURERS' RECORD is the Alexandria (Va.) Sun, which places the matter in this light:

"Although the South has suffered less during the panic than any other section, the croakers and calamity howlers have made as much noise as the most distressed people in less-favored localities. It takes very little to start the cry of 'hard times' in any community. People are always disposed to complain of their lot, and the present is always the worst time they have ever seen, because it is the time when the cares and responsibilities of life rest most heavily upon them. But, as a matter of fact, the condition in this vicinity is no worse today than it was one year ago. The hard winter of 1892-93 put a stop for the time being to all out-door work and many mechanics were idle. There was great distress among the poorer classes, and for awhile soup-houses were opened for their relief. No such distress has prevailed this winter, or not to the same extent. The mildness of the weather has prevented a great deal of suffering, and there is no reason why the year 1894 should not be the most prosperous in the history of our city. It will be if the people will cease prating about hard times and resolve to make times better. Let us get out of the old ruts, improve our streets and in every possible way make the city pleasant and attractive. A little well-directed business energy is all that is needed to set the wheels of progress in motion and insure for us a period of prosperity and plenty."

TRADE NOTES.

THE Van Auker Steam Specialty Co., of Chicago, which claims to make the best steam trap in the world, has issued a neat illustrated steel painted sign of its trap, the Fidelity, to hang up in engine-rooms. Any engineer can obtain one of these signs by dropping a postal card to the company at 203 South Canal street.

WITH the return of activity in building operations this spring comes interest in metal-ceiling work and other exterior and interior decorations. The Roanoke Roofing & Metal Cornice Co., of Roanoke, Va., has a well-equipped plant for furnishing metal building trimmings throughout the South, and is prepared to give prompt estimates on such work.

THE increasing general demand for iron roofing, and especially the increase in its own business, has made necessary on the part of the Garry Iron & Steel Roofing Co., of Cleveland, Ohio, of a considerable extension of its plant. In addition to other improvements, some valuable machinery is being added, which will enable the company to promptly handle its increasing trade.

THE manufacturers of the Ridgemont cement state that the strength developed by this cement compared with Northern and Western brands, its lower cost and the liberal policy of Southern railroads have induced them to treble the capacity of their works since last year and to move the head office from Ridgemont to Norfolk, Va., in order to secure better mail, telegraph and freightage facilities. This industry is in the hands of the Ridgemont Cement & Manufacturing Co. The growth of this business is due to good location and good management.

THE varnish-makers are taking an interest in sandpapering machines and are advocating the use of them. A perfect surface on wood is absolutely required, so that the varnish effect is pronounced and harmonious. Several large concerns have instructed their traveling men to urge the adoption of the "new Conqueror" sander made by the J. A. Fay & Co., of Cincinnati, Ohio. With its use the varnish-makers are said to know that their superior brands rest upon a surface that will give the varnish a much better reputation for quality and durability.

Non-friction metal for bearings is a subject which has interested power-users for years, and many different kinds are now on the market. The "frictionless" bearing metal is an article of comparatively recent invention and for which more than ordinary claims are made by the manufacturers. It is claimed that it can be melted and remelted without any serious deterioration in quality; that it can be melted in the boiler-room and carried a distance without danger of chilling, is entirely free from air-bubbles, does not have to be bored out and is yielding enough

to sustain pounding or crushing weights. The Frictionless Metal Co., of Richmond, Va., is manufacturing this metal and supplying it to the trade.

THE difficulties experienced by canners in obtaining careful work from persons employed in wiping cans preparatory to soldering on the caps has led to the invention of the Burt automatic wiper, which is now being introduced to the trade. This machine, together with a tray wiper and a topping machine and the Burt kerosene oil heating system, are manufactured by the Burt Manufacturing Co., which has Southern sales-room and sample room at No. 4 South Howard street, Baltimore, Md., where machines can be seen or catalogues obtained. The company has its works at Rochester, N. Y.

THE Detrick & Harvey Machine Co., of Baltimore, Md., has recently purchased from the Capitol Manufacturing Co., of Chicago, its business of manufacturing the well known Adams bolt-threading and Cook nut tapping machines. The excellent reputation of these machines for accuracy and durability is well established, and it is unnecessary to go into details at this time. The Detrick & Harvey Machine Co. has an excellent plant, and, with the increased facilities of special machinery, it is prepared to turn out machines of the highest grade of workmanship.

THE Remington Machine Co., machinists, boiler-makers and brass founders, of Wilmington, Del., has recently closed contracts as follows: Ice & Cold Storage Co., Westminster, Md., for an ice-making plant by the direct expansion Plate system; Randolph McFarland, Monroeville, N. J., for an ice-making plant; George Goyt, Hartford, Conn., for a refrigerating plant to be operated by an electric motor; James McGraw, Harper's Ferry, W. Va., for combination ice-making and refrigerating plant, and M. P. Johnson, Wilkesbarre, Pa., for refrigerating plant for bottling establishment.

MESSRS. SCRANTON & Co. have succeeded the Belden Machine Co., of New Haven, Conn., in the line of hardware specialties, power hammers, etc., and are manufacturing and continuing the main office at the same location, 330 to 360 Congress avenue. The Belden Machine Co. does not go out of existence, however, Mr. Geo. H. Scranton, formerly secretary and treasurer of that concern, having resigned his position to establish the firm of Scranton & Co. Messrs. Scranton & Co. report prospects for business greatly improved during the last sixty days, and they look for a prosperous summer and fall.

ON March 21 the Specialty Manufacturing Co. was organized at Hartford, Conn., with a capital of \$50,000, which at special meeting of stockholders was doubled. The amount of stock offered was oversubscribed. The directors and officers of the company are as follows: Geo. J. Capewell, president (vice-president Capewell Horse Nail Co.); Austin Brainard, vice-president (director Aetna Machine Co.); C. A. Flint, secretary and treasurer; E. C. Lewis (president Waterbury Farrel Foundry); John H. Hall (general manager Colt's Patents Fire-Arms Co.); A. W. C. Williams (general manager Capewell Horse Nail Co.); John H. Knight (president First National Bank, Hartford). Among the list of stockholders will be found the names of other leading manufacturers and capitalists of Hartford. The company will manufacture and sell patented specialties, commencing with a number of valuable patents of Mr. Geo. J. Capewell covering nail and tack pullers, barrel-nail pullers, cutting nippers, etc.

TRADE LITERATURE.

MR. D. J. C. ARNOLD, of New London, Ohio, manufacturer of machinery, cars and general supplies for brick plants, has issued a pocket edition of his 1894 catalogue. It is in a convenient form for reference and presents illustrations and prices. Mr. Arnold announces that he has a large stock of goods on hand and is in better shape to fill orders promptly than ever before.

THE Steward & Romaine Manufacturing Co., Limited, of Philadelphia, Pa., has issued a new catalogue and price list for 1894 of its single and double patent parallel expansion bolts. The company also manufactures machine-made stirrups and bolts of all kinds, and solicits the continuance of former patronage. Testimonials of the company's product coming from all over the United States, from Mexico, Canada and even Europe, are given.

MESSRS. BERGER BROS., of Philadelphia, Pa., are presenting their annual catalogue for 1894, fully illustrating their extensive line of supplies. The firm manufactures tinners' hardware and roofers' supplies, and claim that they have the largest plant of the kind in the country. In the future, as in the past, the Messrs. Berger will endeavor to retain the good-will of the trade and produce the best goods at lowest prices, and they are fully prepared to supply an increasing demand.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

*Means machinery is wanted, particulars of which will be found under the head of "Machinery Wanted."

*In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ALABAMA.

Bridgeport—Machine Shop.—G. W. Rodebaugh has commenced the erection of a machine shop to manufacture principally his patent saw-mill dog.

Eufaula—Canning Factory.—For information regarding the proposed canning factory address Alexander McKay.

Florence—Stove Foundry.—H. Thoele and associates have purchased the old Florence stove foundry at private sale from the trustee and will put it in operation.

Heflin—Grist Mill.—Swift Bros. have built a grist mill.

ARKANSAS.

Lewisville—Lumber Mill.—The Sunny South Lumber Co. is rebuilding its lumber mill, lately burned, and it will soon be completed.

Little Rock—Lumber.—The Central Lumber Co has been organized to deal in lumber; J. B. Gray is secretary.

Little Rock—Plaster Works.—It is reported that H. O. Elsbroad, of Minneapolis, Minn., and E. W. McCormick, of Washington, D. C., intend to erect in Arkansas a \$50,000 plant for manufacturing adamantine plaster.

Pine Bluff—Machine Works.—John Brazelton, of Dallas, Texas, is endeavoring to organize a company in Pine Bluff to manufacture a patent cotton grader.

FLORIDA.

Blue Springs—Phosphate Mines and Plant.—Dr. Weston, William Weston and Gurd Fisk have leased phosphate lands on Blue Spring river and will open mines. Plant will also be built.

Sanford—New Machinery.—Forrest Lake will put new machinery in his ice factory.

St. Petersburg—Curacao Factory.—W. F. Spurlin, noted last week as to engage in manufacturing curacao, has organized the St. Petersburg Canning Co. to operate a factory. Mr. Spurlin, who is of Camden, Ala.; J. C. Williams and Jas. S. Cox, of St. Petersburg, compose the company.*

Tampa—Cigar Factory.—Candeza, Gilleanis & Co., of Philadelphia, Pa., will remove their cigar factory to Tampa. Contract for new building to cost \$5000 will be let.

Ybor City—Cigar Factory.—Longilla & Benemelts have let contract to Edenfield & Jeton at \$16,000 for the erection of a cigar factory.

GEORGIA.

Abbeville—Saw Mill.—McLoam Brown will rebuild his burned saw mill.*

Acworth—Gold Mines.—T. S. McDaniel, of Woodlawn, Ala., and associates will develop gold mines near Acworth.

Atlanta—Slate.—George P. Howard and others have applied for a charter for the Southern Slate Co.

Atlanta—Machine Works.—M. F. Amorous, B. C. Milner, Jr., Geo. W. Collin, Jno. T. Glenn and others have incorporated the C. B. Attachment Co. to manufacture the Collin boiler attachment and feed water heater. The capital stock is \$10,000.

Cuthbert—Ice Plant.—Ab Jones, H. H. Salomon, Arthur Hood, A. J. Moye and others have incorporated the Cuthbert Ice Co., and will erect an ice plant. The capital stock is \$6500.

Gainesville—New Machinery.—W. A. Wood, tanner, will probably put in new machinery.

Sandersville—Electric-light Plant.—An electric plant for public and private lighting will probably be erected. Herman Bashinsky can give information.*

Swainsboro—Canning Factory.—A canning factory will probably be built. Address Alfred Herrington.

Swainsboro—Cotton Mill.—G. S. Rountree and associates contemplate very strongly the erection of a cotton mill.

Swainsboro—Shoe Factory, etc.—Green Bell thinks of starting a tannery and shoe factory.

Tallahassee—Fruit Cultivation.—R. E. Pines, W. W. Summerlin, J. H. Whitaker and I. D. Iverson have incorporated the Stedman Colony of Fruit Growers for the purpose of cultivating fruits. The capital stock is \$10,000.

Wenonah—Planing Mill, etc.—The Foote & Zuber Lumber Co. contemplates erecting a new planing mill.

KENTUCKY.

Harrodsburg—Ice Plant.—James C. Allen may put in an ice plant.

Kingsville—Canning Factory.—W. L. McCarty and others, noted last week as interested in canning, have organized the King's Mountain Canning Co. and expect to establish a plant.*

Louisville—Veneer Mill, etc.—Jas. H. Venn, Geo. F. Krelchmer, Burt C. Jameson, Edw. F. Hoffman and Martin Falk have incorporated the Falls City Veneer & Panel Co. to deal in veneer and panels, woods, etc. Capital stock is placed at \$25,000.

Rankin—Corn and Flour Mill.—William Rankin & Sons are erecting a 30 or 35-barrel roller flour mill with three high roller cornmeal mill attached.

Smithville—Mill.—The Salt River Stave & Milling Co. has been organized.

Warsaw—Flour Mill.—Geo. T. Thompson contemplates rebuilding his recently burned flour mill, but has not yet definitely decided what he will do.

LOUISIANA.

Dubberly—Saw Mill.—Davis & Monzingo will erect a saw mill.

Monroe—Canning Factory.—Endeavors are being made to organize a canning company. L. D. McLain can give information.

New Orleans—Saw Mills, etc.—The Louisiana Pine Co., Limited, has been incorporated to deal in timber, manufacture lumber, etc. James D. Lacy is president; R. W. Rogers, vice-president, and William M. Rhodus, secretary; capital stock \$100,000.

MARYLAND.

Baltimore—Land, etc.—The Suburban Land & Investment Co. has been incorporated by Charles C. Heath, J. Vernon Campbell, Charles W. Wood, Lawrence N. Frederick, Franklin L. Groff, Chas. Matt and Pembroke M. Womble, Jr. The capital stock is \$7500.

Baltimore—Manufacturing.—George A. Boyden, Wm. L. Straus, Julius M. Jackson, Chas. B. Mann, B. F. Boyden and Albert T. Larrabee have incorporated the Friction Cap Cork Co. to manufacture bottle-sealing devices. The capital stock is \$100,000.

Baltimore—Heating Apparatus.—The Southern Warming & Ventilating Co. of Baltimore has been incorporated by Augustus W. Martin, Frank Martin, William M. Reinhardt, George Savage and William P. Miller. The company will sell appliances to heat and ventilate houses; capital stock is \$50,000.

Belair—Flour Mills.—The Archer and Howard flour mills near Belair have been purchased by the Henry Reckord Manufacturing Co.

Lonaconing—Handle Factory.—Jno. Story has started a handle factory.

Trappe—Canning Factory.—E. A. Powell is erecting a canning factory.

Washington, D. C.—Sanitary.—A charter has been granted to the United States Sanitary Co. with a capital stock of \$50,000. Benjamin Clark is president; J. W. Bartlett, secretary, and J. B. Kendall, treasurer.

MISSOURI.

Farber—Coal Mines.—The Farber Coal Co. has filed articles of incorporation and intends to open coal mines near Farber.

Monett—Mercantile.—Flora Kahn, Sidonia Solomon and Sig Solomon have incorporated the Kahn Mercantile Co. with a capital stock of \$7000.

St. Louis.—H. B. Williamson, John Tonenkamp and August Hoffman have incorporated the Hoffman Grading & Clearing Co. with a capital stock of \$20,000.

St. Louis—Mercantile.—John A. Stephens, Elizabeth A. Stevens and Walter P. Dwyer have incorporated the Kick Grocery & Provision Co.

St. Louis—Printing Works.—Alphonse Lefkow, Julius J. Ring and Henry Evans have incorpo-

rated the Franklin Printing Works with a capital stock of \$5000.

St. Louis—Packing-house.—The Union Stock-Yards Co. intends to erect a complete pork and beef-packing establishment to cost complete about \$250,000. It is expected that the plant will be completed in the fall and employ 150 men. Daniel N. Palmer is the company's manager.

St. Louis—Feed.—J. M. and William Saeger and August F. W. Luehrman have incorporated the Saeger Feed Co. with a capital stock of \$10,000.

Three States—Timber Rafts.—F. E. Greelman, of Cairo, Ill.; E. J. Deal, of Charleston, Mo.; Z. T. Bowers and Ed Sims, of Three States, and others have incorporated the Rust Rafting & Transportation Co.

NORTH CAROLINA.

Elmwood—Distillery.—Jno. M. Wilhelm contemplates erecting another distillery, to be located near the South Carolina line.

New Berne—Box Factory.—S. Newton, of the Farmers' Manufacturing Co., of Norfolk, Va., contemplates starting a fruit-package factory in New Berne.

Oswego—Gin and Saw Mill.—Wesley Burnette will rebuild his burned saw and grist mill.*

Rocky Mount—Gold Mines, etc.—It is reported that the Keystone Mining & Manufacturing Co. will develop the Jones gold mine in Randolph county and erect a plant to mill from 100 to 200 tons of ore per day.

Salisbury—Mining, etc.—The Allen & Boyden Co. has been incorporated to deal in mining properties, water-powers, etc. R. M. Eames is president; Victor H. Boyden, vice-president, and Geo. Allan, of Raleigh, secretary treasurer.

University Station—Saw Mill.—C. A. Whitaker will establish a saw mill, and is now erecting building for same. Will also manufacture handles.*

SOUTH CAROLINA.

Anderson—Publishing.—J. K. Hood and B. F. Brown, Jr., have organized the Columbia Publishing Co.

Blacksburg—Brick Works.—A. W. Osborne is preparing to manufacture fire-proof and building brick, and will be ready for operations in about a month.

Charleston—Wheelbarrow Factory, etc.—A wheelbarrow factory will be established, a capital of \$20,000 having been subscribed for the purpose. A hand broom factory will also be started. Eber Blodgett furnished this information.

Charleston—Cotton Mill.—It is reported that a New England capitalist is corresponding with a Charleston party relative to erecting a \$500,000 cotton mill.

Georgetown—Water Works.—The construction of a water-works system is talked of. The mayor can be addressed.

Newberry—Water Works.—The city council has ordered a survey for a system of water works. Supply will probably be obtained from artesian wells. George S. Mower can be addressed.

Piedmont—Flour Mill.—Nesbitt & Trowbridge are erecting a 30-barrel roller flour mill at Cedar Falls.

Union—Increase Capital.—The Union Cotton Mill Co. has increased its capital stock to \$125,000.

Smyrna—Gold Mines, etc.—The Enterprise Gold Mining Co., incorporated under New Jersey laws, will operate the old Martin gold mine near Smyrna. Will also prospect for iron pyrites in Bethel township. J. G. McNulty is president and manager of the company.

TENNESSEE.

Buena Vista—Saw and Planing Mills, etc.—The Southern Box & Novelty Co. will erect saw and planing mill and box factory.

Dover—Canning Factory.—The erection of a cannery is talked of.

Kenton—Lumber Mill.—R. M. Kerr has started manufacturing lumber.

Knoxville—Saw and Planing Mills.—J. F. Hicks, J. R. McDowell, W. W. Deming and others have organized the Little River Land & Timber Co., which obtained charter last week to erect saw and planing mills on Little river. A tract of 8000 acres of land has been secured for development on which there is estimated to be about 20,000,000 feet of poplar lumber.

Nashville—Coal-mining.—The South Jellico Coal Co., of Campbell county, has been chartered with E. C. McCaskey, of Knoxville; W. L. Welcher, Samuel McKinney, C. Deadrick and Leon Jourlomon as incorporators.

Nashville—Mercantile.—The F. A. Shelton Grocery Co. has been chartered.

Nebos—Stone Mill.—Mack Morris contemplates building a stone mill.

Newport—Flour and Meal Mill.—The mill reported

last week as being built by the Newport Mill Co. is for manufacturing seventy five barrels of flour and 500 bushels of meal daily.

Trenton—Stave Factory.—J. B. Kerr has commenced the manufacture of staves.

Union City—Canning Factory.—H. Dietzel, Seid Waddell and Price Thomas have purchased the Baker Manufacturing Co.'s canning factory, and will operate same.

Union City—Fire-alarm System.—The city will construct a fire-alarm system. Address Seid Waddell, mayor.

Waverly.—T. B. Traylor, P. P. May, A. W. Trogdon, S. J. May and H. C. Knight have incorporated the Traylor & May Co.

TEXAS.

Austin—Books.—H. P. N. Gammel, Lansing B. Fontaine and A. W. Denquest have incorporated the Gammel Book Co. with a capital stock of \$200,000.

Corsicana—Artesian Wells.—The artesian well committee has let contract for the sinking of three artesian wells.

Denison—Grain Elevator.—Contract has been awarded at \$9000 for the erection of an 8000-bushel grain elevator in Denison.

El Paso—Telephone System.—W. S. McCutcheon, lately noted, will organize the Citizens' Telephone Co. and install a system of 200 instruments.*

Gatesville—Oil Mill, etc.—It is said that a company will be organized to erect a cottonseed oil mill. Steam laundry and electric-light plant are also talked of.

Houston—Corn and Flour Mill.—Love & Co. are erecting a corn and wheat mill.

Huntsville—Electric-light Plant.—The Huntsville Electric Light & Ice Co., noted last week as erecting electric-light plant, has filed its charter. T. H. Ball, J. G. Ashford, T. C. Gibbs, C. G. Barrett and others are the incorporators; capital stock \$6500.

Laredo—Gold Mines.—The Laredo Mining Co., lately noted as organized, has filed its charter with the secretary of state, placing its capital stock at \$100,000. The incorporators are Charles Abraham, W. H. Dever, M. F. Fernandez and Thomas Ryan. Active developments will be instituted at once.

Longview—Electric-light Plant.—Hugh Echols writes that an electric-light plant will be built, complete equipment for same having already been ordered.

Rockdale—Brick Works.—W. H. Veasey is organizing a company to establish press brick works.

San Antonio—Electric-light Plant.—The electric-light plant lately noted as let to contract will be operated by Edward J. O'Beirne and others, to whom franchise has been granted.

San Antonio—Telegraph System.—B. F. Kingsley, C. K. Mead and C. M. Kingsley have incorporated the American District Telegraph Co. to operate telegraph lines, etc. The capital stock is \$3000.

Temple—Garbage Furnace.—The city may purchase garbage furnace. For information address the mayor.

VIRGINIA.

Buena Vista—Clothing Factory.—The Virginia Clothing Co. has been organized and granted a charter for the purpose of manufacturing clothing, using principally cloth from the Buena Vista Cassimere Mills. David R. Miller is president; W. W. Baldwin, vice-president, and R. F. Hill, secretary, treasurer and manager.

Charlottesville—Electric-power Plant.—The Piedmont Construction & Improvement Co. has purchased site for its electric power-house and will soon commence work on it.

Clarksburg—Flour Mill.—The Point Flour Mills property, noted during the week as purchased by H. T. Wilson at commissioners' sale, was bought for C. M. & J. B. Hart, who will operate the mill when sale is confirmed. The mill has a daily capacity of 100 barrels of flour, roller system.

Farmville—Water Works.—W. P. Dupuy, of Roanoke, and associates, lately noted as having obtained water franchise, have organized a company to construct system. J. P. A. Motu is president; H. I. Von Hemert, secretary and treasurer, and J. D. Cochins, superintendent.

Keysville—Silk Mills.—The Virginia Silk Manufacturing Co. has been incorporated to manufacture and deal in silk of all kinds. Its capital stock is \$100,000, and J. T. Goodrick, of Fredericksburg, is president; Arthur Pedley, of Paterson, N. J., vice-president; J. W. Bartlett, of Washington, secretary. Buildings are about completed and machinery is now being installed.

Keysville—Gold Mines.—The recently discovered gold deposit near Keysville may be extensively developed in the near future, as Wm. T. Riggs, of

Washington, D. C., and others are endeavoring to form a company for this purpose.

Lynchburg—Machine Company.—The parties who recently purchased the rights in the McKay plant-setter have organized the American Transplanter Co. to place the machine on the market. C. V. Winfill is president; H. E. McWane, vice president, and Jas. D. Tate, secretary.

Norfolk—Manufacturing, Investments, etc.—A charter has been granted to the Security Investment Co., the purpose of which is to collect money from its shareholders, invest the same in real estate and sell the same, to build houses and factories, lend money upon the building association principle, etc. The capital stock is to be not less than \$5000 nor more than \$1,000,000. A. S. J. Gammon is president; George W. Dey, first vice-president; George W. Black, second vice-president; W. D. Pender, secretary and attorney; the above and R. A. Dodson, directors.

Portsmouth—Barrel and Box Factory.—The Atlantic Crate Co. has been chartered with a capital stock of \$50,000 to manufacture crates, barrels, boxes, etc. John S. Torbert, of Philadelphia, is president; W. F. Wise, of Norfolk, vice president, and R. M. Bateman, of Camden, N. J., secretary-treasurer.

Richmond—Fertilizer Companies.—The consolidation has been announced of the Atlantic & Virginia Fertilizing Co., of Virginia, the Monumental Chemical Co., of Baltimore, and the Sulphur Mines Co., of Richmond. Business will be continued under the name of the Sulphur Mines Co.

Richmond—Furniture Works.—A charter has been granted to the Preston Belvin Furniture Co. for the purpose of dealing in and manufacturing furniture. The capital stock is to be not less than \$10,000 nor more than \$50,000. Preston Belvin is president; R. A. Carter, secretary-treasurer, and, together with A. V. Stokes, Jr., Richard Cauthorn, Jr., and Wm. F. Seymour, they form the first board of directors.

Richmond—Brick and Tile Works.—The Richmond Brick Co. has been incorporated to manufacture brick and tile, etc., with a capital stock of not less than \$10,000 nor more than \$25,000. Ware B. Gay, of Boston, Mass., is president; Robert Wilson, of Frederick, Md., vice-president, and W. L. Walters, of Richmond, secretary-treasurer. The board of directors includes, besides the officers mentioned, E. H. Gay, of Richmond, and Nixon Ball, of Grayton, Va.

Tabscott—Gold-mining.—The charter of the Benton Gold Mining Co. has been recorded at Richmond, the incorporators being Gilbert H. Manning, of Norwich, N. Y.; Calvin L. King, of Oselic, N. Y.; Wm. E. Martin and Geo. N. Benton, of New York city, and Geo. A. Bishop, of Binghamton. The capital stock of the company is to be \$150,000, and it proposes developing gold and other mines. Offices at Tabscott and 35 Wall street, New York city.

Winchester—Ice and Cold-storage Plant.—A movement is on foot to establish an ice plant and cold-storage house, as the new system of water works now to be introduced into the town will permit the consummation of this long-deferred project. For information address Box 64.*

WEST VIRGINIA.

Dingess—Coal Mines.—The Twelve Pole Mining Co. is soon to commence coal-mining developments near Dingess, where it owns 10,000 acres of coal lands.

Grafton—Water Works.—At an election held on the 19th instant the city voted an appropriation of \$40,000 to pay for the construction of its proposed water works. Address Geo. W. Chambers, mayor.

Greenville—Coal Mines.—Henry C. Byrnside can be addressed regarding recent discoveries of coal veins in Monroe county.

Martinsburg—Canning Factory.—The Berkeley County Canning Co. has been incorporated to establish the canning factory noted last week. Alex. Copen, Charles H. Miller, Charles S. Seibert and U. S. G. Pitzer, of Martinsburg, and S. W. Wood, of Hedgville, are the incorporators; capital stock \$25,000.

Piedmont—Planing Mill.—W. A. Liller will start a planing mill.

Wheeling—Tents, etc.—Theodore, Edmund C., Carrie B. and Olga Roller and J. C. Williams have incorporated the Wheeling Tent & Awning Co. with an authorized capital stock of \$20,000.

BURNED.

Abbeville, Ga.—McLoam Brown's saw mill.

Alesia, Md.—S. H. Hoffacker's grist and saw mill.

Benson, N. C.—Stores of S. W. Mangum & Co., Ryals & Co. and B. H. Woodall; loss \$5000.

Cameron, Texas.—Stores of E. Sanders, G. A. Thomas, E. Vogel and A. M. Belcher's hotel; loss estimate \$25,000.

Fort Worth, Texas.—W. H. Williams & Co.'s drug store and Lyon & Reeves's produce store; loss estimate \$60,000.

Frankfort, Ky.—A. J. Bartlett & Co.'s wagon and repair shops.

Harrodsburg, Ky.—Storehouse of W. Phelps; loss \$4000.

Memphis, Texas.—McMillen & Co.'s grain elevator.

Norfolk, Va.—The Roanoke Railroad & Lumber Co.'s plant; loss \$150,000. E. H. Barnes & Co.'s box factory; loss \$30,000. The Old Dominion Creosoting Co.'s plant; loss \$50,000. These plants were all located at Money Point, near Norfolk.

Poplar Bluff, Mo.—The Neal Hotel; loss \$6000.

St. Louis, Mo.—Car sheds of the Missouri Railway Co.; loss \$100,000.

New Orleans, La.—The Texas & Pacific Railroad Co.'s grain elevator badly damaged by wind and rain storm; loss \$15,000 to \$20,000.

Tyler, Texas.—C. C. Wood's cotton gin.

Washington, N. C.—The Rose Bay Lumber Co.'s mill.

BUILDING NOTES.

Augusta, Ga.—Business Block.—W. Mulherin's Sons will have plans prepared for a business block.

Baltimore, Md.—Association Building.—The East Baltimore Business Men's Association is considering a site on which to erect a store and association building. A. V. Dolfeld is interested.

Baltimore, Md.—Business Block.—George Frank will build a business block 18x90 feet and three stories high of brick with stone trimmings to cost \$15,000. G. C. Haskell is architect.

Baltimore, Md.—Dwellings.—Thomas B. Marshall has obtained permission to erect two three-story houses on Maryland avenue.

Brundidge, Ala.—Church.—Funds are being raised to erect a Methodist church.

Chestertown, Md.—Hall.—The commissioners of Chestertown have been authorized to borrow money with which to build a town hall.

Clintwood, Va.—Courthouse.—Contract has been let to C. F. Mayo, of Pikeville, Ky., for building the proposed courthouse, which is to cost \$700.

Cumberland, Md.—Church.—The Lutheran church will be remodeled at a cost of about \$14,000. Address Rev. J. W. Finkbiner, pastor.

Eustis, Fla.—Church.—The proposed church at Eustis will be built by the Disciples. M. K. Pendleton will inform.

Fayetteville, W. Va.—Courthouse.—The plans of Franzheim & Giesey, of Wheeling, W. Va., have been accepted for the Fayette county courthouse, which is to cost \$40,000. Bids will be received from contractors until April 5.

Franklin, Ga.—Courthouse.—Plans are wanted for a courthouse to cost about \$15,000 to replace the one recently burned. Address P. McCutchen.

Gatesville, Texas.—Courthouse.—The project of building a \$75,000 courthouse is being considered.

Harper's Ferry, W. Va.—Depot.—The Baltimore & Ohio Railroad Co. has decided to build a new passenger depot. Address General Superintendent Fitzgerald at Baltimore.

Homerville, Ga.—Courthouse.—The courthouse proposed for Homerville is to cost \$20,000. The plans of Bryan & Denny, architects, at Atlanta, have been accepted.

Jacksonville, Fla.—Market-house.—A site has been purchased on which the public market is to be built. Address Mayor Fletcher.

Knoxville, Tenn.—Theatre.—W. Chamberlin & Co., architects, will give information regarding a theatre to be built to seat 500 to 600 people.

Lexington, Va.—Hall.—I. E. A. Rose, of Lynchburg, Va., is architect for the hall to be built at the Virginia Military Institute. No contracts have been let.

Macon, Ga.—Residence.—S. P. Jaques has purchased land on which he will build a country house.

Memphis, Tenn.—Theatre.—S. D. Kyle will receive bids for constructing the exterior and iron work of the new Lyceum Theatre, for which plans have been prepared by Wood & Lovell, of Chicago. The building will be six stories high and cost \$98,000.

New Orleans, La.—Clubhouse.—The Pickwick Club has appointed a committee to consider the question of building a clubhouse.

New Orleans, La.—College Addition.—Property has been purchased on which to build an addition to Newcomb College for dormitory purposes.

Pine Bluff, Ark.—Church.—The plans of Gibb & Breysacher, of Little Rock, have been accepted for the Presbyterian church, which is to cost \$15,000. It will be 70x90 feet and built of brick with stone foundations.

Pine Bluff, Ark.—Church.—The congregation of the First Presbyterian Church will erect a new edifice to cost \$20,000. It will be of brick and seat 600.

Statesboro, Ga.—Courthouse.—Funds are to be provided for erecting a courthouse to cost \$15,000.

St. Louis, Mo.—Flats.—J. B. Brinkmann will erect a row of flats to cost \$14,000.

St. Louis, Mo.—Hotel.—J. B. Legg states that

contracts are let for the Alabama Hotel, which is to cost \$180,000. Furniture has not been purchased yet.

St. Louis, Mo.—Church.—The Eden congregation is preparing to build a new edifice. Address Rev. F. M. Esson.

St. Louis, Mo.—Church.—The congregation of Grace Presbyterian Church, it is reported, will build an edifice to cost \$30,000 on a site recently purchased. Address S. M. Gamble.

Washington, D. C.—Church.—It is announced that Murdock & Harding will prepare plans for St. Andrew's Church, which is to be 64x120 feet and built of stone and brick. Bids from contractors will be wanted about April 15.

Washington, D. C.—Dwellings.—G. W. Maher will erect a four-story brick and stone dwelling to cost \$5000; George C. Bloomer will erect four three-story dwellings on T street of brick and brownstone. R. E. Crump is architect for all.

Waynesville, N. C.—Jail.—Bids will be received until April 3 for the jail which is to be 40x50 feet in size and cost about \$8000. Address C. H. Ray, mayor.

Wheeling, W. Va.—Clubhouse.—Architect L. W. Henigst will receive bids until April 7 for the Arion Clubhouse improvement which is to cost about \$10,000. A three-story addition 35x45 feet will be made.

RAILROAD CONSTRUCTION.

Railroads.

Albany, Ga.—It is stated that the Boston & Albany, completed from Pidcock to Moultrie, is to be extended to Albany through Colquitt county. J. W. Pidcock, at Moultrie, Ga., is superintendent.

Augusta, Ga.—A spur of the Charlotte, Columbia & Augusta road is now being built to the property of the North Augusta Land Co. in the suburbs.

Baltimore, Md.—The West Baltimore Land Co. has obtained permission to build an electric road along several highways in Baltimore county. Wallace Stebbins is president of the company.

Baltimore, Md.—It is understood that a company is being formed to construct the proposed extension of the Savannah, Americus & Montgomery road into Savannah. Hambleton & Co. are interested.

Bessemer City, N. C.—Local people are interested in a plan to build a railroad from Bessemer City to Crouse's Station, connecting the Richmond & Danville and Carolina Central roads.

Blooming, Fla.—It is reported that a syndicate which has purchased 1200 acres of land in Leon county will build a road from Blooming to a point on the Carrabelle, Tallahassee & Georgia road.

Charlotte, N. C.—The project of building a railroad line to the Egypt coal fields is being agitated.

Charlotte, N. C.—Parties are considering a plan to build a belt road to give factories in the suburbs a rail connection with the Carolina Central and Richmond & Danville roads.

Centerville, Md.—It is reported that work is to begin on the electric road from Queenstown to Chestertown early in April. W. H. Bosley, of Baltimore, is among those interested.

Galveston, Texas.—Work of grading the Gulf & Interstate road has been begun at Bolivar Point, opposite Galveston. C. J. Jones is in charge.

Glenville, Ga.—The Parrott Lumber Co., of Atlanta, is building a private road sixteen miles long between Glenville and Hagan's, on the Savannah & Western road.

Greenfield, Mo.—It is reported that the Greenfield & Northern has decided to build from Greenfield to Osceola, fifty miles, which will give it a St. Louis connection. T. H. West, at Aurora, Mo., is manager.

Haskell, Texas.—Surveys are being made for an extension of the Texas Central from Albany to Haskell.

Jacksonville, Fla.—Secretary Charles S. Adams, of the River Front Terminal Co., states that the plan of the company is to make a 60-foot street along the river front for nearly a mile; protected by a pile bulkhead, and to build a railroad along this way and around the city to connect the several roads entering Jacksonville; estimated expense is \$150,000.

Little Rock, Ark.—J. H. McCarthy, who has the contract to build the Lake Superior, Southwestern & Gulf road from Little Rock to Harrison, Ark., will submit contracts for clearing right of way, grading, piling and trestle work, and may be addressed at Little Rock. The section will require several large bridges. E. I. Rosenfeld, at Springfield, Mo., will let the contracts for these.

Manassas, Ga.—It is reported that a lumber railroad is to be built from Manassas into the lumber district of Tattual county by private parties. It is to be twelve miles long.

Pickens, W. Va.—The lumber road which the Pickens Lumber Co. intends building may be

extended to Webster, twenty-five miles distant. The road will be built at once for a distance of six miles into the woods. G. M. Whitescarver is superintendent.

Pikesville, Md.—The projectors of the electric road from Pikesville to Randallstown have formed a company to be known as the Randallstown, Harrisonville & Granite Railroad Co. with \$50,000 capital. E. S. W. Choate and James W. Offutt are among the incorporators.

Plant City, Fla.—It is reported that arrangements have been completed to build the Florida, Peninsular & Gulf road from Plant City to Charlotte Harbor. The road will traverse Hillsborough, Polk, Manatee and De Soto counties. John Cross, at Arcadia, is interested.

Rusk, Texas.—The railway being built by the State penitentiary authorities is to be changed to standard gage and extended sixteen miles to connect with the International & Great Northern line. Address Hon. James P. Gibson.

Tampa, Fla.—President S. A. Jones states that the Tampa, Clearwater & Gulf Beach road, from Tampa to Clearwater Harbor, will surely be built. A company has been formed and surveys are being made. The distance is about twenty-five miles.

Street Railways.

Covington, Ky.—Work has begun on the extension of the Covington & Cincinnati Street Railway, which is to be ten miles long. M. J. Degnon is contractor.

Montgomery, Ala.—It is stated that the Montgomery Street Railway Co. has sold its bonds for extension purposes and will build several additions to its system. F. B. Pickering may be addressed.

New Orleans, La.—The work of rebuilding the Prytania street division of the New Orleans Traction Co.'s lines for the use of electric motors has begun. Ninety-pound steel rails are to be used. Address H. M. Littell, superintendent.

Richmond, Va.—A company has been formed to build an electric road along Broad street, connecting West End and Church Hill suburb by a steel viaduct; estimated expense \$200,000. John C. Robertson is general manager, and E. T. D. Myers, Jr., engineer.

Cableway.

Wheeling, W. Va.—Estimates are being made for building the proposed cableway for passengers. Address Gilmore Brown, engineer.

Canals.

Leesburg, Fla.—J. H. C. Pratt will give information about the proposed vessel canal between Lakes Harris and Griffin. No estimates of its cost have yet been made. It is to be about one and a quarter miles long.

Rockledge, Fla.—The Rockledge Canal Co. has been formed with \$10,000 capital to excavate a vessel canal across Merritt's Island to the Banana river. It will be about one-half mile in length and eight feet deep. A. S. Lee is president.

MACHINERY WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Bark Mills.—The Moore & Handley Hardware Co., Birmingham, Ala., wants to correspond with manufacturers of bark mills.

Bed-spring Machinery.—The Moore & Handley Hardware Co., Birmingham, Ala., wants to correspond with manufacturers of bed-spring machinery.

Belting.—Wesley Burnette, Oswego, N. C., will need belting.

Boiler.—The Newport News Soap Co., Newport News, Va., wants a twelve or fifteen horse-power boiler.

Boiler and Engine.—H. Muncy, Larue, Ky., wants to buy a thirty horse-power portable boiler with detached engine.

Can Machinery and Cannery Supplies.—Sneed Bros., Pronto, Ala., want machinery for making two and three pound tin cans, copper sheets for evaporators, galvanized or silvered-wire cloth, etc.

Canning Machinery.—An outfit of canning machinery will probably be wanted at Kingsville, Ky. by W. L. McCarty and associates.

Cars.—J. M. Blanton, Natural Bridge, Ala., will want second-hand coal cars.

Coal Screens.—J. M. Blanton, Natural Bridge, Ala., will want coal screens.

Coal-screening Machinery.—The Kentucky Bird-eye Coal Co., Halsey, Ky., is in the market for coal-screening machinery.

Conveyors.—The Canton Canning Co., Canton, Mo., will need chain conveyors.

Corn Mill.—The Nickell Co., Ronceverte, W. Va., wants a second-hand cornmeal bolt, single conveyor.

Cotton mill Machinery.—The Millfort Mill Co., Fort Mill, S. C., will want 100 looms in about a month.

Dry-kilns.—The Jackson Office Furniture Co., Jackson, Tenn., wants a dry-kiln that will dry 500 to 10,000 feet of lumber daily.

Dynamos.—E. H. Davis, manager, Eatonton, Ga., is in the market for a twenty-five to 100 arc-light and 100 to 400-light incandescent dynamos, wire and fixtures; second-hand machines will do if in good condition. Quote prices.

Electric-light Plant.—The citizens of Sandersville, Ga., are desirous of granting franchise for electric-lighting, and correspondence is desired with interested parties. Address Herman Bashinsky.

Elevator, etc.—The Canton Canning Co., Canton, Mo., will need a hand-power elevator; also hoisters.

Engine.—R. E. Grant, Middleport, Ohio, wants a second-hand 14x24-inch slide-valve engine.

Engine.—The Kyle Oil Co., Kyle, Texas, wants a second-hand engine of sixty to seventy five horse-power (Corliss preferred).

Engines.—J. A. Craig, Macon, Miss., wants to correspond with builders of steam-plow engines.

Farming Machinery.—W. C. Jones, Smithville, Ark., wants to buy a reaper and binder and buncher.

Felloe Machine.—Davis & Monzingo, Dubberly, La., will buy a felloe machine.

Grating Machine.—The St. Petersburg Curacao Co., St. Petersburg, Fla., wants a machine (hand or power) to grate the yellow part of ripe oranges without cutting the white part or pulp.

Grinding Machine.—The Greenville Saw Works, Greenville, S. C., wants a heavy grinding machine.

Handle Machinery.—C. A. Whitaker, University Station, N. C., wants handle machinery.

Heating and Ventilating Apparatus.—Jeremiah O'Rourke, supervising architect, Washington, D. C., will open sealed proposals on April 13 for heating and ventilating apparatus to be installed in the postoffice building at Staunton, Va. See advertisement in this week's issue of MANUFACTURERS' RECORD.

Heating and Ventilating Apparatus.—The Treasury Department will receive sealed proposals until April 12 for the heating and ventilating apparatus for the courthouse and postoffice building at Martinsburg, W. Va. See advertisement.

Hoisting Plant.—Kinzer & Schaeffer, P. O. Box 83, Blacksburg, Va., expect to be in the market for steam-hoisting machinery for coal mines.

Ice-machinery Supplies.—The Artesian Ice Factory, Montezuma, Ga., will need coils and ammonia for ice machine.

Ice Plant, etc.—Box 64, Winchester, Va., wants information regarding ice manufacture and cold storage; also estimates on machinery for same.

Iron Fence.—About 500 feet of iron fence for cemetery is wanted at Bridgewater, Va. Address E. Smith Dinkle.

Iron-working Machinery.—R. E. Grant, Middleport, Ohio, wants iron-working machinery.

Lathe.—J. J. 130, Sun Office, Baltimore, Md., wants a foot-power lathe; Reed & Co. make preferred.

Machine Shop.—McA. McManus, Taxahaw, S. C., wants a line of tools for machine shop.

Pipe.—A. J. Baldwin & Co., Dawson, Ga., want prices delivered at Dawson on about one and one-half miles eight-inch pipe, two and one-half miles six-inch pipe, one and one-half miles four-inch pipe, with connections, Ys, Ts, etc., suitable for use in putting in water works. Let price be by the foot or yard.

Pulleys, etc.—The Canton Canning Co., Canton, Mo., will need pulleys, shafting and hangers.

Pulleys.—Wesley Burnette, Oswego, N. C., will need pulleys.

Pumps.—Kinzer & Schaeffer, P. O. Box 83, Blacksburg, Va., expect to be in the market for steam pumps.

Punch and Shears.—The Greenville Saw Works, Greenville, S. C., wants a hand punch and shears.

Rails.—J. M. Blanton, Natural Bridge, Ala., will want T rails.

Rails.—The Waldo Land & Investment Co., Kansas City, Mo., will be in the market for 50-pound girder and 50-pound T rails.

Road Roller.—H. T. Wise, Houston, Texas, wants a second-hand steam road roller of about ten tons weight.

Roofing.—The Greenville Saw Works, Greenville, S. C., will want sheet iron roofing.

Roofing Copper.—The Secretary of the Interior,

Washington, D. C., will open sealed proposals on April 6 for furnishing 100 sheets of best quality roofing copper. See advertisement in MANUFACTURERS' RECORD this week.

Roofing-works Machinery.—The Shenandoah Steel Roofing Works, Woodstock, Va., will purchase machinery for roofing works.

Saw.—Davis & Monzingo, Dubberly, La., will buy hand saw.

Saw Mill.—C. A. Whitaker, University Station, N. C., wants equipment for saw mill; also full particulars regarding mill operations.

Saw Mill.—W. S. Lewis, Carlos, W. Va., wants to buy a portable hand-saw mill of thirty-five horse-power.

Saw Mill.—H. Muncy, Larue, Ky., wants to buy a portable saw mill (see boiler and engine).

Saw Mill.—McLoam Brown, Abbeville, Ga., will want a saw mill for heavy timber business, new or second-hand.

Shafting.—The Millfort Mill Co., Fort Mill, S. C., will want shafting.

Special Machinery.—The Cameron-Barkley Co., Charleston, S. C., wants to correspond with manufacturers of machinery for making rules.

Suspender Supplies.—G. F., in care of MANUFACTURERS' RECORD, Lumberton, N. C., wants to correspond with manufacturers of webbing, buckles, rings and general supplies for manufacturing suspenders.

Telephone Equipment.—The Citizens' Telephone Co., El Paso, Texas, will want complete equipment for a telephone system of 200 instruments, apparatus for exchange included. Address W. S. McCutcheon.

Tobacco Machinery.—The Franklin Tobacco Works, Franklin, Tenn., want a granulator, a hydraulic jack and shapers.

Woodworking Machinery.—J. W. Roach, Manchester, Ky., is in the market for a planer, a resaw and a rip saw.

Woodworking Machinery.—E. H. Davies, Magnolia, Ark., wants to buy one eight-inch flooring machine; also one automatic knife grinder.

Woodworking Machinery.—H. C. Harver, Huntington, W. Va., wants latest improved machinery for the manufacture of tubs.

Capt. C. McD. Townsend, U. S. A., Memphis, Tenn., will receive sealed proposals until April 26 for the construction of about 1,340,000 cubic yards of levees.

Capt. F. A. Mahan, U. S. A., Montgomery, Ala., will open proposals on April 12 for 10,000 barrels, more or less, of Portland cement.

McA. McManus, Taxahaw, S. C., wants material for building purposes.

The Greenville Saw Works, Greenville, S. C., will want smokestack iron and saw steel.

The Rio Grande Dam & Irrigation Co., of El Paso, Texas, will receive sealed bids until April 15 for the construction of dams and canals.

W. E. Ingersoll, of Oswego, Kans., wants to buy broom handles in carloads, twine by the bale and broom wire by the pound.

TRADE NOTES.

THE Gleason & Bailey Manufacturing Co., of Seneca Falls, N. Y., has a handsome hose wagon in its shops for Andover, Mass.

THE honor of furnishing the celebrated U. S. cruiser Columbia with a full complement of twist drills and tools has fallen to the Cleveland Twist Drill Co., of Cleveland, Ohio.

THE attention of sewer constructors and contractors is directed to the advertisement of Meridian, Miss., in this issue of the MANUFACTURERS' RECORD. Proposals are to be opened on May 1 for an entire system.

LUMBER people will find in this issue an opportunity offered to invest \$50,000 in an extensive saw-mill company now in operation in the South. An active part in the management can be secured by anyone putting in the money if desired.

THE Fall River Manufacturing Co., Fall River, Mass., is reorganizing its mill and putting in all new machinery of the most modern type. Orders for revolving flat cards and drawing frames have been placed with the Pettie Machine Works, of Newton Upper Falls, Mass.

THE Glen Cove Machine Co., of Brooklyn, N. Y., manufacturer of improved planing mill machinery, has removed its office to Tower Building, No. 50 Broadway, New York city, where all correspondence should be addressed. The company's works remain in Brooklyn as heretofore.

THE Lodge & Davis Machine Tool Co., Cincinnati, Ohio, is building for the Card Electric Motor & Dynamo Co., of the same city, a large standard engine lathe to be driven by electricity. The motor will be placed in the headstock, taking the place of the usual cone pulley, and attached direct to live spindle.

THE trade of the Jno. F. Byers Machine Co. for the last thirty days has been good, and the secre-

tary writes the MANUFACTURERS' RECORD that the outlook for the summer is better than he has yet known. The Byers Machine Co. has works at Ravenna, Ohio, for the manufacture of portable steam hoisting engines.

MR. P. M. WILSON, manager of the Philadelphia branch of the Garvin Machine Co., at 51 North Seventh street, reports that he has recently placed with the Bonsack Machine Co., of Salem, Va., several large machine tools to enable this company to take care of a good lot of orders it has on hand and in immediate project.

INVESTORS in electric railway enterprises will be interested in investigating the opportunity offered for buying a very extensive electric railway system in Nashville, advertised in this issue of the MANUFACTURERS' RECORD. Nashville is not only one of the leading cities of the South, but one of the most prosperous and progressive in the country. Its electric railway system will prove a very inviting opportunity for all who are interested in enterprises of that character.

Baltimore's Manufacturing Progress.

Few cities in America are making more rapid progress in industrial matters than Baltimore. The census of 1890 gave Baltimore an investment of \$92,000,000 in manufacturing enterprises, employing about 83,000 hands, whose annual wages aggregated over \$35,000,000. Since then manufacturing interests have increased rapidly, and every week shows the location of some important industry here. Baltimore, including the immediate suburbs, has at present at least \$112,000,000 of capital invested in factories, employing over 100,000 hands. This steady expansion of industrial interests has necessitated the opening up of industrial suburbs in order to furnish room for factory growth. Foreseeing this condition of affairs Mr. William S. Rayner several years ago organized the South Baltimore Harbor & Improvement Co. This company purchased about 1500 acres of land having five miles of waterfront and established the town of Curtis Bay. Many large industrial enterprises, including the Ryan & McDonald machine shops and extensive car works, a rolling mill, a bolt and nut factory, a sugar refinery and other institutions, have been built at that point. Manufacturers who are seeking a location at Baltimore can appreciate the value of being immediately on deep water and having good railroad transportation facilities. These are found at Curtis Bay. Mr. Rayner will be glad to give full particulars regarding the advantages of that place to anyone seeking information.

READ HOUSE, Chattanooga, Tenn., is one of the most favorably-known hotels in the South; attested by its register record; second to none in the number of names enrolled therein daily. Its situation immediately in front of the union depot, and at the same time in the centre of the business portion of the city, makes it at all times the commandant of the patronage of the tourist as well as commercial man, who have made it headquarters in Chattanooga for years. We bespeak for the Read continued popularity.

Atlantic City.

Numbers of visitors are now being attracted to the Queen City by the Sea to enjoy the pure and invigorating air, the balmy breezes tempered by the Gulf Stream and the multitude of attractions of the popular American watering place—Atlantic City. The board walk, which is a distinctive feature of this resort, now presents daily a panorama of almost an endless procession of humanity. The hotels in the evening convey a most attractive picture of social enjoyment and inviting comfort. The train service of the Pennsylvania Railroad presents the quickest and most comfortable ride to and from this resort. From Baltimore (Union Station) the 12.53 and 4.10 A. M., 12.05 and 1.20 P. M. trains week days, and on Saturdays the 10.45 A. M. train make close connection with trains from Philadelphia (foot of Market street) over the company's double line to Atlantic City. Returning, express trains leave Atlantic City at 7.35 and 9.00 A. M. and 3.55 P. M. week days, 4.00 and 5.30 P. M. Sundays only, closely connecting at Philadelphia with trains for Baltimore. Excursion tickets are now on sale at all the company's principal ticket offices.

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The Norwich Line is one of the popular steamship lines between Boston and New York. Solid vestibuled trains leave the New York and New England depot, foot of Summer street, Boston, daily, Sundays excepted, at 7.05 P. M., making close connections with the steamers at New London. On the return from New York, steamers leave Pier 40, North river, at 5.30 P. M., and the connecting train is due in Boston at 9 A. M.